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THESIS

THE FUTURE OF RESPONDER FAMILY PREPAREDNESS: THE NEW NORMAL

by

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December 2013

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THE FUTURE OF RESPONDER FAMILY PREPAREDNESS: THE NEW NORMAL

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Submitted in partial fulfillment of the requirements for the degree of

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ABSTRACT

The U.S. government has recently contended that communities cannot be "prepared" without first ensuring the safety of responders and their families. Organizations have generally done little to nothing to ensure that the families of their responders are adequately prepared to survive and function on their own in the absence of the responder. Consequently, there exists a widespread policy gap concerning family preparedness in the first-responder community. Research indicates that much of the U.S. population has ignored the U.S. government's preparedness message and opted not to prepare.

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LIST OF ACRONYMS AND ABBREVIATIONS

BJA Bureau of Justice Assistance
CDC Centers for Disease Control

CHDS Center for Homeland Defense and Security

CISM critical incident stress management
DHS Department of Homeland Security

DRC Disaster Research Center
DSP Delaware State Police

ERRGP Emergency Responder Resilience Grant Program

FEMA Federal Emergency Management Agency

FSU family support unit

GOA Government Accountability Office
HSGP Homeland Security Grant Program

HSPD Homeland Security Presidential Directive

LATCH Lower Anchor and Tethers for Children Restraint System

NCR National Capitol Region

NPS National Preparedness System

OMB Office of Management and Budget

PSOB Public Safety Officers' Benefits programs

SRO school resource officer
USAF United States Air Force
USAR urban search and rescue

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EXECUTIVE SUMMARY

This thesis began with the suspicion that a widespread policy gap exists in the first-responder realm concerning the adequacy of family preparedness planning. Though the responder community proudly holds its families in high regard, a potential disconnect is created when responders are called for duty during a large-scale crisis. In such a situation, responders must willingly leave their families while likely feeling concerned that their loved ones may need them or become endangered in their absence. In essence, when responders are most vital to their communities, they are also much needed at home.

This research sought out agencies that were providing, requiring, or documenting policy in this area. The intent was to examine and evaluate such materials in an attempt to recognize successes, failures, and the reasons behind these outcomes. The ultimate goal was to identify smart practices. Though responder family preparedness measures may be occurring on a very limited basis, it was found that nothing was prevalent in the literature or other media to indicate widespread or well-known activity. Literature did demonstrate that U.S. government efforts at attempting to get citizens minimally prepared, particularly since the eye-opening events of 9/11 and Hurricane Katrina, have yielded lackluster results. It also revealed that responders and their families have generally been lumped in with the rest of the citizenry, despite their unique position during these potentially desperate times.

The U.S. government distinguished first responders from other citizens through *Homeland Security Presidential Directive* 8 and for their families through the Public Safety Officers' Benefits Program. These designations highlight the fact that responders are, indeed, in a category apart from the citizens they serve. Furthermore, the federal government has contended, through the Ready Responder program, that communities and businesses cannot be prepared without first ensuring the safety of the responders and their families. In light of this, responder family preparedness needs to be treated as a priority.

¹Federal Emergency Management Agency, *Ready Responder Toolkit: Emergency Planning for First Responders and Their Families*, Federal Emergency Management Agency Ready, accessed August 27, 2013, www.ready.gov/sites/default/files/documents/files/RRToolkit.pdf, 1.

The Delaware State Police (DSP), like most responder agencies, lacks planning in responder family preparedness. Therefore, this research focused on the primary question as to whether the development and execution of a comprehensive family preparedness program would be advisable to assist the agency in maintaining its capabilities during a disaster. Since nothing sufficient was discovered in existing policy, bits and pieces of interesting and valuable ideas found in the literature helped to shape a potential path toward the creation of policy for DSP. Research also assisted in developing program framework and evaluated factors such as cost, timeline, and ease of implementation.

Of the interesting ideas in circulation, the go-kit was determined to be a highly recommended component of family preparedness. It is very hard to argue against this low-cost, minimal preparedness measure when the U.S. government has been telling the citizenry continuously for over a decade that it could be without responder assistance for at least three days. Another government recommendation, the Ready Responder program, was also deemed to hold significant value in planning and policy creation due to its adaptable framework. However, an important missing component in responder family preparedness planning is the synthesis of the various good ideas proposed. These ways of thinking provide a path forward, though a path is pointless unless someone is willing to take the first step. As such, a mandate of family preparedness with responder organizations taking responsibility and ownership was explored as a necessary element.

It is recommended that DSP commit to the preparedness of its troopers and their families by instituting a three-part strategy to ensure that they have formulated verified plans, they possess the specified items that DSP has required for initial post-disaster survival, and that an internal support system is in place. The division should not leave any doubt as to whether or not troopers and their families are prepared for these most dire times, especially when the division is requiring that the family divide for the benefit of all citizens.

This new way of thinking and acceptance of responsibility for our protectors and their families creates a new paradigm in the world of responder preparedness. DSP would be among the first-responder agencies, if not the first, to create and mandate a comprehensive responder family preparedness policy for the protection of its own. In

addition, it would also signal the start of a larger movement to take responder family preparedness out of the "optional" category and to have it viewed as a necessity. This will come to represent the new normal.

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"A man should never neglect his family for business."

-Walt Disney

I would like to recognize the former Delaware Division of State Police Superintendent, Colonel Robert M. Coupe (ret.), for his outstanding leadership and support over the years. His endorsement for me to participate in CHDS was pioneering for the division. I thank him for having the faith in me and for deeming CHDS a wise investment for the division. His successor, Colonel Nathaniel McQueen, Jr., provided me with a similar level of support for which I am grateful. Despite his busy schedule and daily challenges, he also found the time to check in with me and see how things were going. Both men are very sincere and are leaders in the true sense of the word.

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I. INTRODUCTION

A. PROBLEM STATEMENT

Over the last decade, specifically since 9/11 and Hurricane Katrina, public service agencies across the United States have made great effort to ensure that their first responders are adequately trained and equipped to effectively respond to large-scale and long-term disasters. At the same time, these very organizations have done little to nothing to ensure that the families of these first responders are adequately prepared to survive and function on their own in the absence of the responder. Not-so-subtle and recent reminders, such as Superstorm Sandy, caution us of this harsh reality and the fact that responders can be torn between loyalty to their agencies and to their families. In these crises, responders were called to duty while having to leave their families at home and potentially in harm's way. This will inevitably occur again, and it matters how agencies prepare.

The lack of planning and policy indicates a critical gap that leaves responder agencies far less prepared during a crisis than they may realize. Performance, morale, and resiliency of the responder are subject to being negatively affected when the safety of responder families is not taken into account. Consequently, the overall performance of the organization is also subject to the same negative influences. There is a troubling paradox: when responders are most needed by the community in which they live, they are simultaneously most needed by their families. Planning in this area is crucial to addressing this likely and predictable dilemma when tragedy strikes close to home.

The responder culture puts families first. For example, when a responder has a sick spouse or child, management generally urges the responder to take the time necessary to assist his or her family. Conversely, when things are at their worst, such as during a disaster, the responder is expected to leave his or her family behind. The family may be without power, water, operable communication devices, and left in a state of fear like the rest of the surrounding population. These responder families are essentially absent in organizational planning. This oversight defies logic and is in direct conflict with

the responder culture. Therefore, research is necessary to thoroughly examine this dilemma and to determine if organizational responsibility for family preparedness is a smart practice and a viable solution. If so, the actual nature of this responsibility also needs to be addressed in the research.

The Delaware Division of State Police (DSP), like most first-responder agencies, has not accounted for responder family preparedness and this policy gap needs to be bridged. To maintain agency capabilities during a significant disaster or one with long-term consequences, perhaps DSP needs to take organizational responsibility to develop and ensure that mandatory preparedness measures for troopers and their families are continually in place.

The primary goal of this research is to determine how to maintain the overall capability of DSP during a disaster; however, a secondary and much broader goal is to share the findings of this research with the national responder community in the hope of serving as a potential model for others to adopt and modify to their specific agency. This identified policy gap is not unique to the Delaware State Police and is a nationwide problem in need of further inquiry and resolution.

B. BACKGROUND DEFINITIONS

Four definitions are repeatedly used throughout the document and are crucial to understanding the discourse contained in this thesis: preparedness, smart practice, resilience, and first responder. The meaning of these terms is presented to provide the reader with the necessary context through which to follow the author's line of thinking. It is not the intent of the author to debate their meaning or utility, but rather to set the stage for an examination of preparedness and resilience in the first-responder realm through the search for smart practices or their component ideas.

"Preparedness" is not easily defined, nor measured; one person's definition of being adequately prepared may vary greatly from that of another. Some citizens have become obsessed with preparing to live life after societal and governmental collapse, while others have not put an ounce of thought into what they would do if that had to survive a few days without electricity, food, or water. There is no one-size-fits-all solution to being prepared; however, one can certainly take simple steps to make oneself and one's family better prepared. For the purpose of this paper, preparedness will be defined as having minimal necessities to ensure that basic needs are met for at least three days. This yardstick echoes what the U.S. government has been recommending for a decade concerning the preparedness of its residents to survive for approximately 72 hours without government assistance during or in the wake of a disaster. Furthermore, the government recommends preparing a go-kit, comprised of basic necessities and tools, and developing a plan before disaster strikes.² Therefore, this is the logical benchmark.

A "smart practice" is defined as "an interesting idea embedded in some practice." Author Eugene Bardach coined the term and explained that smart practices usually have something "clever" about them. He stated that this cleverness is what must be analyzed; he explained that the researcher must look to identify what is clever, put it into words, and evaluate it for its suitability to the matter at hand.⁴ Bardach claims that these practices and the driving forces behind them have the hidden potential to provide something of value that is free or inexpensive.⁵

The notion of "resilience" is defined in the 2010 National Security Strategy as "the ability to adapt to changing conditions and prepare for, withstand, and rapidly recover from disruption." The term "resilience" has been increasingly used by the federal government as a goal of preparedness. In addition, the 2010 strategy claims that "national security draws on the strength and resilience of our citizens, communities, and economy." Furthermore, the strategy calls for strengthening our preparedness and resilience and explains that, no matter the measures, every threat will not be thwarted;

² Federal Emergency Management Agency, "Build a Kit: Basic Disaster Supply Kit," Federal Emergency Management Agency Ready, accessed October 17, 2013, http://www.ready.gov/basic-disaster-supplies-kit.

³ Eugene Bardach, *A Practical Guide for Policy Analysis: The Eightfold Path to More Effective Problem Solving* (New York: Chatham House, 2000), 72.

⁴ Ibid.

⁵ Ibid.

⁶ White House, *National Security Strategy* (Washington, DC: White House, 2010), White House, www.whitehouse.gov/sites/default/files/rss_viewer/national_security_strategy.pdf, 18.

⁷ Ibid., 10.

this is the reason why we must increase our resilience. It advises that the federal government will continue to engage the public and will provide useful steps that all Americans can take to protect themselves and their families.⁸

Homeland Security Presidential Directive 8 (HSPD-8) identifies "first responders" as "those individuals who in the early stages of an incident are responsible for the protection and preservation of life, property, evidence, and the environment, including emergency response providers..." It also includes "emergency management, public health, clinical care, public works, and other skilled support personnel (such as equipment operators) that provide immediate support services during prevention, response, and recovery operations." 10

C. DSP BACKGROUND

As part of their extensive and ongoing training, Delaware troopers receive state-of-the-art instruction and the most modern weapons and equipment. This assists in increasing their confidence and their ability to successfully perform in their roles. Troopers are required by policy to be both physically and mentally prepared to carry out their duties. Their physical abilities are certified through annual weigh-ins and fitness tests, as well as semi-annual firearms qualifications. DSP has done an exceptional job of preparing troopers to be tactically sound and resilient in their work roles. However, the mental preparedness of troopers is not so easy to gauge and is generally assumed adequate, absent other evidence.

As dedicated as these troopers are to their jobs, many are equally, if not more, dedicated to their families as spouses, partners, fathers, mothers, sons, daughters, and caregivers. They manage to strike a balance between their work lives and their family lives, often with much interference in the form of overlap stemming from erratic schedules, call-outs, work and work-related stress that they take home. This juggling of

⁸ Ibid., 17–19.

⁹ White House, *Homeland Security Presidential Directive/HSPD-8* (Washington, DC: White House, 2003), Federation of American Scientists, https://www.fas.org/irp/offdocs/nspd/hspd-8.html.

¹⁰ Ibid.

priorities occurs regularly during their everyday lives. The real problems emerge when troopers are faced with the low-frequency, high-risk events that truly test their mettle. A large-scale natural disaster, industrial accident, or terror attack all fall into this category. To date, troopers have responded to significant weather-related events, such as snowstorms, nor'easters, and hurricanes; however, most have not been separated from their families for any significant, unexpected period of time. Nevertheless, all troopers know that this requirement to respond is part of the organizational rules and a true possibility. It is part of the culture and is understood. The DSP motto of "service before self" represents far more than just words.

A popular unofficial motto among Delaware troopers is "family first." Typically, sick or injured family members who are in need of the care of the trooper are given first priority during these times, and management often advises the trooper that his/her family comes before the job. This deviation from the official motto of "service before self" and the justification that goes along with that deviation clearly demonstrate that the "self" includes one's family unit, who ultimately also makes a daily sacrifice. It is commonplace at award ceremonies to hear recipients thank their families for the sacrifices that they, too, have made to support the trooper throughout his/her career. The family members of first responders do pay a price. Due to an around-the-clock schedule, ball games to birthdays are often missed because of work responsibilities taking a higher priority due to the chosen profession, which many troopers feel is a "calling." This balancing act often carries with it a sense of guilt and anxiety regarding one's loved ones.

The Delaware State Police currently lacks any set policies and/or procedures to ensure that troopers and their families are adequately equipped physically or mentally to sustain them during or in the immediate wake of a disaster. This issue should be of the utmost importance since troopers could be called and ordered to leave their families. Recent research, outlined below, points to the fact that first responders take into consideration family concerns when deciding whether or not to respond to a large-scale crisis, especially when their families are left in potential danger. Furthermore, these concerns also weigh heavily on their minds during a crisis and can negatively affect their work performance and safety.

D. RESEARCH QUESTIONS

The primary research question is: Would the development and execution of a comprehensive family preparedness program assist the Delaware State Police (DSP) in maintaining its capability during a time of a major crisis?

The secondary and related research questions are:

- What policies and/or practices exist, are in development, or are being discussed to support family preparedness within the first-responder community?
- Are any of the identified policies, practices, or ideas useful to DSP?
- How could a family preparedness program be developed and implemented?
- What are the associated policy issues?

II. METHOD AND OVERVIEW OF THESIS

During this thesis preparation, research was conducted in an attempt to answer the primary question as to whether the development and execution of a family preparedness program would assist the Delaware State Police in maintaining its capability during a major crisis. Several related sub-questions were addressed, the first being how family preparedness is being approached throughout the national first-responder community.

This exploration was accomplished by determining what policies and/or procedures exist, are in development, or are being discussed. In addition, the research attempted to determine if any agencies are mandating family preparedness measures and if a similar such mandate could be key to improving DSP family preparedness. Research was conducted mainly through a review of existing and emerging literature, primarily in the field of government, law enforcement, and emergency services. These primary and secondary sources included theses, dissertations, government documents, websites, pamphlets, journals, newspaper articles, and other periodicals.

The results of this investigation, contained in Chapter III, reveal what similar policies, procedures, practices, and interesting ideas exist or existed among the first-responder communities in our nation. This undertaking was approached as a selection research project using a prescriptive and normative approach to sorting the data. This method assisted in identifying the interesting ideas and "smart practices" that have risen to the surface in the scholarship and discourse in the realm of first responders.

The second step in this research involved sifting through existing programs and the interesting ideas that were uncovered. Each was examined and evaluated in an attempt to recognize successes, failures, and the reasons behind these outcomes. The anticipated reward for this effort is the discovery of smart practices and their applicability to DSP. This exploratory and inductive research was imperative in preparing to develop new policy where none currently exists—a critical policy gap within DSP. This analysis is contained in Chapter IV.

The path of some inquiries widened the scope related to the thesis topic and revealed issues important in their shared concepts. These apparent similarities to the thesis topic were analyzed for parallel lines of thinking, correlation, and explanations. They were also examined for their applicability related to the concepts of responder family preparedness, mandated behavior, and organizational responsibility. This analysis is contained in Chapter V.

Research moved toward solving the problem through the development of policy specific to DSP as outlined in Chapter VI. In turn, the appropriate interesting ideas and relevant issues that were analyzed were synthesized with DSP's needs in mind. This undertaking aimed to build a framework for minimal responder family preparedness by providing equipment, planning, and personnel to achieve a higher level of said preparedness. Such factors as cost, timeframes, and ease of implementation were addressed.

Chapter VII discusses obstacles and possible resolutions related to the execution of this plan. Such matters as funding and the preferential treatment of responders are debated. The concept of changing mindsets is also addressed, discussing the impact of the program, risks and payoffs, and the power of collaboration. Chapter VIII concludes this thesis and highlights the findings, opportunities for future research, and the potential path forward.

III. LITERATURE REVIEW

A. INTRODUCTION

The literature review reveals a lack of information on the topic of mandatory preparedness for first responders. It also reveals that there is even less information pertaining to the related concept of responder organizations being responsible or sharing the burden for the preparedness of their personnel and their personnel's families. However, it appears that interest is moving in this direction due to the realization that emergency response plans are inherently flawed in their current assumption that responders will, without doubt, be present, both mentally and physically, to execute those plans. Until recently, this very important ingredient, that of a ready and willing responder, appears to have been taken for granted in first-responder planning. In the literature, a debate emerged and continues to this day.

The tragedies of 9/11 and Hurricane Katrina renewed concerns about responders responding. Since then, some solutions have been proposed, and the pendulum is swinging in the direction of the government making efforts to get citizens and responder organizations adequately prepared. Though this effort has been thought provoking for many citizens, government engagement in promoting preparedness has only been suggested, recommended, and, therefore, remains optional. In reality, this endeavor has not translated into any widespread and successful preparedness efforts.

B. EARLY THOUGHT

In 1952, Lewis M. Killian published an article in the *American Journal of Sociology* examining the significance of multiple-group membership in disasters.¹¹ He noted that issues encountered in disasters "brought to light latent contradictions in roles not ordinarily regarded as conflicting."¹² He provided the example of one individual with three separate roles—businessman, family man, and volunteer firefighter—who normally

¹¹ Lewis M. Killian, "The Significance of Multiple-Group Membership in Disaster," *The American Journal of Sociology* LVI, no. 4 (January 1952). Thanks to Mark Landahl for this source.

¹² Ibid., 310.

acted separately in those roles. Killian surmised that, during a disaster, individuals could be placed in a quandary when having to make an immediate choice between the now-conflicting roles. From the four incidents that he examined, Killian labeled the choice between the family and another group, such as the employer or the community, as the most frequent dilemma.¹³

Ultimately, Killian concluded that individuals may find that it is "impossible to serve two masters" by acting simultaneously in both roles and that further research was needed in this area to predict which choices individuals will make. ¹⁴ He also predicted that loyalty to primary groups is generally superior. However, he noted that there are exceptions and that "training and feelings of responsibility, may predispose the individual to adhere to secondary-group demands even in a disaster." ¹⁵

C. DISASTER DISCOURSE

Some scholars have carried forward and pursued Killian's hypothesis; however, not everyone agreed with his thoughts on conflicting roles representing a potential pitfall for responder agencies. In 1984, Enrico Quarantelli, founder of the Disaster Research Center (DRC) at the Ohio State University that later relocated to the University of Delaware, claimed that the research had demonstrated that "this so-called role conflict does not result in the abandonment of, or failure to carry out, occupational responsibilities." Quarantelli conceded that there is psychological strain, but that emergency personnel can be expected to carry out their duties. He cautioned that "disaster planning must rest on valid knowledge and not myths or misconceptions." 18

¹³ Ibid., 311.

¹⁴ Ibid., 314.

¹⁵ Ibid.

¹⁶ Erico L. Quarantelli, *Organizational Behavior in Disasters and Implications for Disaster Planning* (Emmitsburg, MD: National Training Center, 1984), University of Delaware, http://udspace.udel.edu/bitstream/handle/19716/1265/RS18.pdf;jsessionid=910DC985C35E030F91CD54F FA30FC87B?sequence=1, 17.

¹⁷ Ibid., 17.

¹⁸ Ibid., 29.

Two years later, in 1986, a fellow DRC researcher, Russell Dynes, explained that Killian's work was read by many and interpreted as an "explanatory concept." He advised that many researchers believed that in a disaster responders would choose their families first. According to Dynes, these researchers started adding anecdotes to Killian's concept, giving it "a sense of reality." In addition, Dynes stated that Killian did not find responders choosing their families over their duties and had only advised that it could happen. According to Dynes, since 1963, DRC has interviewed over 7,000 organizational officials regarding 150 different disasters, and they concluded that role conflict was not problematic. Conversely, he stated that too much manpower during these times was the real problem.

Both Dynes and Quarantelli claimed that role strain is reduced in disasters; they explain that structural changes provide for conditions leading to the "positive reinforcement of relevant emergency roles."²⁵ Dynes further explained that police and fire agencies are paramilitary groups with rigidly defined role expectations and call-out procedures.²⁶ He stated that these responders have both personal and organizational motivations to carry out their duties. Dynes claimed, "Role abandonment is non-existent. Role strain is minimal and role conflict is irrelevant."²⁷ However, Dynes footnoted that several variables might be important in further analyzing the concept of role conflict. He explained that the "nature of the disaster"²⁸ could be an important factor and that slower onset and widespread disasters may, perhaps, result in role conflict. Moreover, Dynes

¹⁹ Russell R. Dynes, "The Concept of Role in Disaster Research" (preliminary paper 105, Disaster Research Center, University of Delaware, Newark, NJ, 1986), http://udspace.udel.edu/bitstream/handle/19716/2516/PP%20105%20DSpace%20Ready.pdf?sequence, 19.

²⁰ Ibid., 10.

²¹ Ibid.

²² Ibid.

²³ Ibid., 12.

²⁴ Ibid.

²⁵ Ibid., 16.

²⁶ Ibid., 24.

²⁷ Ibid., 25.

²⁸ Ibid., 33.

also noted that an absence of organizational planning in this area may, indeed, create higher levels of role conflict.²⁹ Despite the lack of empirical evidence, it appears that Dynes agrees with Killian's position that it could someday happen.

Quarantelli, Dynes, and other scholars at the DRC have been instrumental in changing the mindset concerning the very concept of "disaster" and the fact that disasters are not just large-scale accidents.³⁰ In the context of his 1984 article, Quarantelli painted an evolving threat picture. He explained that a new group of potential man-made threats, such as "technological accidents and mishaps" involving "chemical, nuclear, and electrical power" systems, had joined the list of natural disasters such as hurricanes and tornadoes.³¹ Quarantelli even forecasted that computer network problems could possibly lead to issues in the financial sector.³² He explained that new and evolving technology would add to the complexity of these future threats.³³ Quarantelli also claimed the future would have more disasters and that the effects of these disasters would lead to higher levels of "social disruption and economic or property losses."³⁴ He noted that aging infrastructure in older American cities could also contribute to possible future disaster; decaying bridges, tunnels, highways and aging water and sewer systems, possibly could create and/or exacerbate a future disaster.³⁵

Twenty-two years later, in 2006, Quarantelli was still conducting research and publishing at DRC. He, no doubt, was influenced by the enormity of the damage and social disruption caused by Hurricane Katrina. For example, he stated that during Katrina, there was "a great deal of work-family role conflict in key emergency

²⁹ Ibid., 33.

³⁰ Erico L. Quarantelli, "Catastrophes are Different from Disasters: Some Implications for CrisisPlanning and Managing Drawn from Katrina," June 2006, Social Science Research Council, http://www.iworkweb.com/DART_training_2011/pdf/week_1/Quarantelli_2006.pdf, 1.

³¹Quarantelli, Organizational Behavior, 1.

³² Ibid., 2.

³³ Ibid., 1.

³⁴ Ibid.

³⁵ Ibid., 2.

organizations."³⁶ In addition, he noted that anecdotal evidence suggested that one third of New Orleans Police Department officers failed to report for duty and/or failed to remain on the job. This non-reporting was something that he previously viewed as not being an issue, and he continued to voice his skepticism, pointing out that the city's fire department did not experience the same problem.³⁷ It is important to note that two years later, Quarantelli concluded that the police department was "highly dysfunctional long before Katrina" and not capable of professionally serving the city.³⁸

After reviewing Katrina and looking back at other non-typical disasters such as Hurricane Hugo that obliterated St. Croix in 1989 and Hurricane Andrew that leveled Homestead, Florida in 1992, Quarantelli saw the necessity for re-categorizing disasters. He identified such incidents as the 1900 Hurricane that devastated Galveston, Texas and the earthquake and resulting fires that ravaged San Francisco in 1906 as other such atypical disasters. Quarantelli stated that such incidents were "qualitatively" larger than simply a "disaster." He suggested that such crises be given the upgraded conceptual title of "catastrophe." Quarantelli advised that he and a few others had been pushing for this separate distinction for a few decades and that the more recent incidents such as Katrina caused this concept to be taken more to heart. In retrospect, Katrina may have also served as a prime opportunity to validate past disaster research findings and to update disaster research science in the newer and more dangerous world. Perhaps, the issue that Killian had hypothesized now took on deeper relevance.

³⁶ Quarantelli, "Catastrophes," 4.

³⁷ Ibid.

³⁸ Erico L. Quarantelli, "Conventional Beliefs and Counterintuitive Realities," *Social Research: An International Quarterly of the Social Sciences* 75, no. 3 (Fall 2008): 891, University of Delaware, accessed October 7, 2013, http://udspace.udel.edu/handle/19716/4242.

³⁹ Quarantelli, "Catastrophes," 2.

⁴⁰ Ibid., 1.

⁴¹ Ibid., 2.

⁴² Ibid., 4.

Quarantelli, once again, addressed and continued to update the evolving threat picture. This time, he added terrorism to the category of man-made threat. 43 Significantly, no longer were these threats solely the result of accident or mishap. Quarantelli did not classify the events of 9/11 as anything more than a disaster, but noted that a nuclear or biological terror attack could possibly rise to the level of "catastrophe." He advised that planning and management for a catastrophe was not much different from that of a disaster. He encouraged near-everyday training and "planning from the ground up rather than from the top down," emphasizing that this held higher value for response to a catastrophe. In the end, Quarantelli stated this was not the last word, and he encouraged readers of his work to "think outside of their usual perceptual boxes." It is encouraging to find a central founder of the disaster research field not speaking in absolutes and inviting new and unconventional thinking in this area.

D. RESURGENCE IN LITERATURE

New thinking did emerge. A resurgence in interest can be attributed to a list of failures that were revealed during the extreme conditions present on the Gulf Coast during Hurricane Katrina. Most obviously was the fact that the New Orleans Police Department was rendered almost ineffective during the storm due to officers not responding for duty or leaving their posts.⁴⁷ Role abandonment played a part for many of the estimated 240 of the 1,450 New Orleans police officers who never showed up for work during the event.⁴⁸ Consequently, over 200 officers were administratively

⁴³ Ibid., 7

⁴⁴ Ibid.

⁴⁵ Ibid., 6.

⁴⁶ Ibid., 7.

⁴⁷ Mark Landahl and Cynthia Cox, "Beyond the Plan: Individual Responder and Family Preparedness in the Resilient Organization," *Homeland Security Affairs* V, no. 3 (September 2009): 2, www.hsaj.org/?fullarticle=5.3.4.

⁴⁸ Joseph E. Trainor and Lauren E. Barsky, "Reporting for Duty? A Synthesis of Research on Role Conflict, Strain and Abandonment among Emergency Responders during Disasters and Catastrophes" (Newark, DE: Disaster Research Center, University of Delaware, 2011), http://dspace.udel.edu:8080/dspace/handle/19716/9885, 13.

investigated for their absences and many resigned or were fired.⁴⁹ This breakdown fueled speculation as to whether or not other first responders would respond to similar catastrophic events in the future.

Similarly, the National Fire Academy has produced some relevant research on the topic of role conflict. In 2005, Robert Hudson noted that since 9/11 smaller fire departments realized that they were living in a new era and that they, too, were subject to long-term deployments previously only conducted by FEMA, urban search and rescue teams (USAR), or larger fire departments involved in combatting wildfires. In the wake of the collapse of the Twin Towers, Hudson and his fire department from distant Michigan responded to New York City to assist FDNY.⁵⁰ This was groundbreaking for his department and served as an awakening.⁵¹ Hudson's research led him to the conclusion that the fire service in general had policy covering a broad range of topics; however, they lacked any requirements that mandated minimal preparedness for agencies or for developing a family support organization.⁵² Hudson conducted a survey of 86 emergency responders from agencies located throughout the U.S.53 and determined that 91 percent of his respondents indicated that their departments lacked plans for family preparedness⁵⁴ and that 81 percent believed that their departments should do more.⁵⁵ According to Hudson, these survey results should serve as a "red flag to agency administrators."56

The concepts of "ability" and "willingness" of responders to report for duty were first used together in a 2005 large-scale public health study conducted by Kristine Quereshi, R. Gerson, and M. Sherman in which they examined whether healthcare

⁴⁹ Kevin Johnson, "Katrina Made Police Choose between Duty and Loved Ones," *USA Today*, February 20, 2006, http://www.usatoday.com/news/nation/2006-02-20-neworleanspolice_x.htm.

⁵⁰ Robert M. Hudson, *Emergency Preparedness for Responders and Their Families: Are We Ready?* (Emmitsburg, MD: National Fire Academy, 2005), 5.

⁵¹ Ibid., 7–8.

⁵² Ibid., 43.

⁵³ Ibid., 38.

⁵⁴ Ibid., 51.

⁵⁵ Ibid., 53.

⁵⁶ Ibid.

workers would respond to a disaster.⁵⁷ These concepts combined have become a widely accepted category in response analysis. A fair amount of research on these issues has been conducted at the Center for Defense and Homeland Security (CHDS) at the Naval Postgraduate School with several graduate-level papers being written specifically on the topic of responders answering their call to duty and agency responsibility. These studies span several disciplines, but had similar conclusions. In 2007 Shelly Schechter studied the Medical Reserve Corps in Nassau County, New York. She determined that responsibility to family was one of the most significant obstacles to the fulfillment of job requirements.⁵⁸ The same year, Nancy Demme examined the police response to a potential biological incident in the National Capital Region (NCR) and found that family preparedness would be a determining factor in regard to both the ability and willingness of police officers to report for the incident.⁵⁹ In 2008, John Delaney studied the ability and willingness of firefighters responding to a theoretical pandemic flu outbreak in NCR and had similar findings as Demme.⁶⁰ In the same regard, Brian Sturdivant, in 2009, argued "that 'equipping first-responders' also entails the safety and well-being of their immediate family members."61 In all of these studies, the family was a very important consideration for responders.

Other researchers, such as Jane Kushma of the Institute of Preparedness at Jacksonville State University noted that planning in advance for family preparedness had effectively minimized role conflict for responders over the years. However, she advised that there is increased interest in the potential for catastrophic disaster, coupled with the new threat of terrorism and biological or radiological attack. Kushma highlighted the

⁵⁷ Kristine Quereshi, R. Gershon, and M. Sherman, "Health Care Workers' Willingness and Ability to Report to Duty during Catastrophic Disasters," *Journal of Urban Health: Bulletin of the New York Academy of Medicine* 82, no.3 (2005): 379.

⁵⁸ Shelley Schecter, "Medical Reserve Corps Volunteers' Ability and Willingness to Report to Work for the Department of Health During Catastrophic Disasters" (master's thesis, Naval Postgraduate School, 2007).

⁵⁹ Nancy Demme, "Government Expectations and the Role of Law Enforcement in a Biological Incident" (master's thesis, Naval Postgraduate School, 2007).

⁶⁰ John Delaney, "Firefighters' Ability and Willingness to Participate in a Pandemic" (master's thesis, Naval Postgraduate School, 2008).

⁶¹ Brian E. Sturdivant, "Support Framework for First Responder Family Members: A Proposed Model for Increasing Responder Effectiveness" (master's thesis, Naval Postgraduate School, 2009), 4.

above Quereshi et al. study and the fact that many health care workers stated that they would not respond to work during such an event. Kushma claimed that role conflict and role abandonment have not been given "serious attention" for 30 years.⁶² She questioned how things over the years have changed, to include labor force issues and a different generation of workers and workplaces, and how these factors may influence responder attitude. In the end, Kushma called for a detailed review of role conflict, strain, and abandonment. She encouraged planning founded on empirical research and cautioned planners to avoid relying on myth⁶³, echoing DRC researchers.

Mark Landahl and Cynthia Cox, both CHDS alumni, published a very comprehensive piece in 2009 and cited many of the abovementioned works in their Homeland Security Affairs journal article entitled *Beyond the Plan: Individual Responder and Family Preparedness in the Resilient Organization*. The authors advised that "the issue of responder and family preparedness is 'just below the radar' in our national preparedness efforts" and that this issue has not been directly researched.⁶⁴ They further noted that such response "rests upon the assumption that the human element, essential employees, will be ready and able to carry out the functions that have been planned."⁶⁵ The authors further stated that this "assumption" that a first responder will report for duty is "the foundation of the ability of organizations to maintain continuity and provide essential services to citizens affected by disaster."⁶⁶ They, therefore, questioned the strength of this foundation and reported that personal and family preparedness and safety were the primary issues for first responders in both their ability and willingness to answer the call for duty in a crisis. The authors asked if employers were doing enough to

⁶² Jane Kushma, "Role Abandonment in Disaster: Should We Leave This Myth Behind?" *Natural Hazards Observer* XXXI no. 5 (May 2007), accessed October 5, 2013, http://www.colorado.edu/hazards/o/archives/2007/may07/myths.html.

⁶³ Ibid.

⁶⁴ Landahl and Cox, "Beyond the Plan," 19.

⁶⁵ Ibid, 1.

⁶⁶ Ibid.

alleviate these concerns so that responders will answer the call during these difficult times.⁶⁷

Landahl and Cox concluded that personal and family preparedness issues were at the "forefront of the minds of responders in their decision to report to work in emergencies." They questioned whether the same concern was at the forefront of the organization or whether the organization was focused too much on the actual mission that was to be accomplished by the responder if they did, indeed, report for duty. In short, responder attendance was presumed to be a constant, when in actuality it was the most important variable.

To further their point, Landahl and Cox examined the 37 core capabilities used by the U.S. government to measure National Preparedness. These capabilities were identified as the means "to prevent, protect, respond to, and recover from all-hazard emergencies."69 They concluded that none of the capabilities dealt directly with preparedness for the responders or their families or proposed how to minimize family concerns related to the willingness of responders to respond.⁷⁰ They also conducted a survey of current students and graduates in the CHDS Master's degree and Executive Leaders' programs to gather information pertaining to preparedness for employees and the role of the organization in preparedness and resilience. They found that 46.8 percent of organizations had written plans or policies to support employees with food and shelter during large-scale disasters. Only 29.2 percent had written plans or policies to support employee families with the same. Of those surveyed, 97 percent agreed that employee and family preparedness was an essential element in organizational resilience during large-scale emergencies.⁷¹ Over half, 52.9 percent, stated that the organization should be prepared to take responsibility for the care of critical employees and their families.⁷²

⁶⁷ Ibid.

⁶⁸ Ibid., 3.

⁶⁹ Ibid.

⁷⁰ Ibid., 5.

⁷¹ Ibid., 8.

⁷² Ibid., 9.

Landahl and Cox questioned why, if it was reportedly so important to an organization, did they only encourage employee and family preparedness and not require it.⁷³ They make a very powerful and logical point.

Landahl subsequently collaborated in 2011 with Chris Bertram and Michael Williams to publish an article in *Sheriff Magazine* entitled, "Family vs. Duty: Personal and Family Preparedness for Law Enforcement Organizational Resilience." The article stresses that law enforcement agencies should implement policies to increase both personal and family preparedness. They advise that these policies must include steps, goals, training, and communication surrounding the family support that will be provided during disasters. They write that "provisions for the safety of the officers' families should be a component of a plan. Planning and policy development can steer the organizational culture to a culture of preparedness that include (sic) the families of our most critical asset; our people." To

In 2011, Joseph Trainor and Lauren Barsky of the University of Delaware Disaster Research Center (DRC) conducted a study to explore the very question of whether first responders would answer the call or shirk their responsibilities during such trying times. They, too, used the ability and willingness approach to examine this subject and their study also discussed the three main issues of role strain, role conflict, and role abandonment. The authors advised that, from a behavioral research perspective, using real life disasters, role strain and role conflict seldom lead to role abandonment. They concluded that first responders would answer the call to duty and that fears of them abandoning their responsibilities were exaggerated.

Trainor and Barsky stated that they would not go as far as to say that role abandonment will never occur and acknowledged that a crisis larger than what they had

⁷³ Ibid., 10.

⁷⁴ Chris Bertram, Mark Landahl, and Michael C. Williams, "Family vs. Duty: Personal and Family Preparedness for Law Enforcement Organizational Resilience," *Sheriff Magazine*, January–February 2011.

⁷⁵ Ibid., 36.

⁷⁶ Trainor and Barsky, "Reporting for Duty?,"13.

⁷⁷ Andrea Boyle, "They Will Respond," *UDaily*, August 18, 2011, University of Delaware, http://www.udel.edu/udaily/2012/aug/disaster-first-responders-081811.html.

studied may produce a different result.⁷⁸ In the case of the New Orleans Police Department during Katrina, they noted that role abandonment by the police was a "notable exception" to the trend and that it was significant in that sense.⁷⁹ The authors advised that many have blamed this abandonment on pre-existing issues within the police department; however, they cautioned that there have been "no detailed scientific analyses" examining that occurrence.⁸⁰

Employers play a significant role in reducing stress for first responders and their families according to Trainor and Barsky. They also claimed that both role strain and conflict are "common" and that efforts should be undertaken by employers to minimize these factors. The authors concluded that the "focus on role abandonment is likely misplaced" and suggested shifting that focus from the workers to the organization. They claimed that organizational design and structure could serve to "increase or decrease these tensions." Trainor recommends that employers conduct outreach to start families thinking about preparedness issues. He also recommends that employers do more by organizing support and appropriate resources for these families.

E. PREPAREDNESS PROGRAMS

In 2011, Christopher Kelenske conducted research at CHDS to identify reasons why first responders do not personally prepare for disasters.⁸⁵ He found that responders do not prepare because either they do not think about it, it is too expensive, or they do not believe that it will affect them.⁸⁶ Kelenske advocates responder agencies taking the responsibility of ensuring that their responders and responder families are informed,

⁷⁸ Trainor and Barsky, "Reporting for Duty?," 26.

⁷⁹ Ibid., 13.

⁸⁰ Ibid., 14.

⁸¹ Ibid., 26.

⁸² Ibid.

⁸³ Ibid.

⁸⁴ Boyle, "They Will Respond."

⁸⁵ Christopher Kelenske, "Emergency Responder Personal Preparedness" (master's thesis, Naval Postgraduate School, 2011).

⁸⁶ Ibid., 72.

trained, and adequately equipped. He believes that first responders are in a category separate from average citizens and that federal homeland security funding should be made available through grants.⁸⁷

Around the same time, the government did take a larger role in attempting to have first responders heed the preparedness message. In 2011 Federal Emergency Management Agency (FEMA) and Department of Homeland Security (DHS) launched the Ready Responder initiative, which was born out of the mindset that first responders and their families must be prepared. This campaign is geared toward responder organizations and provides them with the framework to develop policies and buy-in within their agencies. The program also provides incentives in the form of possible available grant money to implement and evaluate their level of preparedness. Said evaluation comes in the form of self-reporting from the responders in either a survey or a signed affidavit. This is one step closer to mandating preparedness, but it falls short by relying on unverified self-reporting. 89

The above research demonstrates that employers can have a profound impact on improving the psychological well-being of their employees by taking the effort to ensure that first responders and their families are adequately prepared to live through a disaster. The U.S. military has long been dealing with their troops being separated from their families for extended periods of time and has worked to build resilience among its personnel. Adrienne Stith Butler, Alison Panzer, and Lewis Goldfrank draw a comparison between first responders in a disaster and deployed military personnel in the sense that both may be separated from their families and mutually concerned about the

⁸⁷ Ibid., 77.

⁸⁸ "Welch Launches National FEMA Campaign," news release, July 2010, Center for Homeland Defense and Security, accessed November 10, 2012, http://www.chds.us/?press/release&id=2452.

⁸⁹ Federal Emergency Management Agency, *Ready Responder Toolkit: Emergency Planning for First Responders and Their Families*, Federal Emergency Management Agency Ready, accessed August 27, 2013, www.ready.gov/sites/default/files/documents/files/RRToolkit.pdf, 46.

⁹⁰ Michael T. Kindt, *Building Population Resilience to Terror Attacks: Unlearned Lessons from Military and Civilian Experience* (Maxwell AFB: USAF Counterproliferation Center, 2006), cpc.au.af.mil/PDF/monograph/buildingpopres.pdf, 11.

well-being of their loved ones.⁹¹ The authors suggest that responder agencies look to the military for models on supporting families. The authors further advise that the military provides support groups, daycare, medical services, and other types of family support.⁹²

According to U.S. Air Force (USAF) Lieutenant Colonel Michael T. Kindt, the military provides such services so that service members are assured that their families are prepared during their deployment and so that the service members can concentrate on their deployment and the related crisis.⁹³ Kindt is a strong proponent of the U.S. government adopting military approaches to building resilience "through focused preparation efforts" among citizens.⁹⁴ He claims that the U.S. failure to adopt such approaches represents a "missed opportunity in our national preparedness efforts."⁹⁵

Traditionally, the U.S. military has focused on the well-being of deployed soldiers; however, new and expanding research has been evaluating the psychological welfare of their families. Findings indicate "the need to pay increased attention" to families of combat deployed soldiers. Military One Source is a program funded by the U.S. Department of Defense. It serves active, national guard, and reserve components of the military, as well as their families. Program services cover both online and telephone support, in-person counseling, and a wide array of resources relating to the stresses that go along with military life. Other web-based options for support include sites such as

⁹¹ Adrienne Stith Butler, Allison M. Panzer, Lewis R Goldfrank, *Preparing for the Psychological Consequences of Terrorism: A Public Health Strategy* (Washington, DC: National Academy Press, 2003), 113.

⁹² Ibid.

⁹³ Kindt, Building Population, 13.

⁹⁴ Ibid., 15.

⁹⁵ Ibid.

⁹⁶ Abigail H. Gerwirtz, Christopher R. Erbes, Melissa A. Polusny, Marion S. Forgatch, and David S. DeGarmo, "Helping Military Families through the Deployment Process: Strategies to Support Parenting," *Professional Psychology Research and Practice* 42, no. 1 (2011): 56–62, doi:10.1037/a0022345.

⁹⁷ Ibid., 9.

⁹⁸ "About Military OneSource," Military One Source, accessed October 8, 2013, http://www.militaryonesource.mil/footer?content_id=267441.

Ready Army, Ready Navy and Air Force Be Ready that provide military families with information on general disaster preparedness.⁹⁹

F. CITIZEN ENGAGEMENT

All literature on this topic logically starts with preparedness in general. This concept has existed for some time in the emergency management realm, though the notion of individual preparedness began shortly after the attacks of 9/11. FEMA's marketing campaign began to emerge and evolve after Hurricane Katrina. Over the last decade, the federal government has been informing the members of the general public that they could be on their own, without food, water, power, and communications for at least three days after a catastrophic event. ¹⁰⁰ They have been relaying the message that the average citizen needs to be prepared and that this is an individual responsibility; however, this message has gone mostly unheard. ¹⁰¹

The RAND Corporation questions why Americans are not listening to the preparedness messages and claims that the U.S. needs to "rethink how we promote and measure preparedness." ¹⁰² It claims that the current focus on individual preparedness has led to public indifference. ¹⁰³ RAND researchers call for a paradigm shift and have identified two steps that they claim can support this new direction: cultivating a sense of shared responsibility and making efficient and effective use of existing resources to support preparedness. ¹⁰⁴

⁹⁹ For examples, see: Ready Army website, www.acsim.army.mil/readyarmy; Air Force Be Ready website, www.beready.af.mil; and Ready Navy website, www.ready.navy.mil.

¹⁰⁰ Federal Emergency Management Agency, "Build a Kit."

¹⁰¹ Lori Uscher-Pines, Anita Chandra, Jose Acosta, and Arthur L. Kellerman, "Why Aren't Americans Listening to Disaster Preparedness Messages?" *The RAND Blog*, June 29, 2012, http://www.rand.org/blog/2012/06/why-arent-americans-listening-to-disaster-preparedness.html.

¹⁰² Ibid.

¹⁰³ Ibid.

¹⁰⁴ Jeanne S. Ringel and Jeffrey Wasserman, "The Public Health System a Decade After 9/11: Key Successes and Continuing Challenges," in *The Long Shadow of 9/11: America's Response to Terrorism*, ed. Brian Michael Jenkins and John Paul Godges (Santa Monica, CA: RAND Corp., 2011), http://www.rand.org/pubs/research_briefs/RB9608/index1.html, 182.

Two more studies at the Center for Homeland Defense and Security (CHDS) examined this need for a cultural shift and how it could be accomplished. In 2008, Annemarie Conroy reported that citizens were very unprepared for disasters and that the government needed to do more to create a culture of preparedness. She identified seatbelt use and breast cancer awareness campaigns as models of success and pointed to problems with measuring actual preparedness. In 2010, Nicholas Campasano reported that the U.S. population is generally unprepared. He challenged the personal behavior models used by the Citizen Corps to market preparedness efforts and recommended the simultaneous implementation of societal and community motivations as opposed to solely individual motivation. In 108

Government documents, websites, and informational campaigns examined in this review reveal that the government has taken a passive approach to getting citizens prepared to be their own first responders during the critical initial phase of a disaster and that this approach has not worked well. The primary government effort in getting U.S. citizens prepared has been the Citizens Corps initiative. FEMA has consistently reported that the Citizen Corps program is a success; however, not everyone agrees with this assessment.

In 2006, Kindt deemed the Citizen Corps a failure in terms of developing a resilient America.¹⁰⁹ He accused Citizen Corps of dramatically misrepresenting its success by utilizing misleading metrics.¹¹⁰ To illustrate his point, Kindt noted that the Citizen Corps webpage reported that its programs were very successful throughout the U.S., and that 2,117 Citizen Corps councils were serving 73 percent of the U.S. population. Kindt claimed that this was simply not true; he demonstrated that fewer than

¹⁰⁵ Annemarie Conroy, "What Is Going to Move The Needle on Citizen Preparedness? Can America Create a Culture of Preparedness?" (master's thesis, Naval Postgraduate School, 2008), 6.

¹⁰⁶ Ibid., 6.

¹⁰⁷ Nicholas Campasano, "Community Preparedness: Creating a Model for Change" (master's thesis, Naval Postgraduate School, 2010), v.

¹⁰⁸ Ibid.

¹⁰⁹ Kindt, Building Population, 23.

¹¹⁰ Ibid..

11 percent of 19,429 municipal governments in the U.S. had established Citizen Corps councils. Furthermore, Kindt noted that an approximate total of 165,000 citizens had received training from Citizen Corps, which equated to only .05 percent of the entire U.S. population. Lastly, he cited a 2003 survey, sponsored by the U.S. Department of Homeland Security, that indicated most people in the country had never heard of Citizen Corps and, of the eight percent who had, many could not give an accurate description of what Citizen Corps did. 111

The only deviation from this relatively bland and consistently passive government effort involved an innovative approach taken by the Centers for Disease Control (CDC) in 2011 that spoofed the preparedness campaign and provided information on how to prepare for a zombie apocalypse. After a worldwide rash of bizarre flesh-eating crimes—five in one week in 2012, CDC opted to contact the media and convey that the agency "does not know of a virus or condition that would reanimate the dead (or one that would present zombie-like symptoms)" and that this was only a comedic approach to their preparedness campaign. The CDC did not abandon this appeal and has reported that the effort has been successful in getting its message to a wider and more diverse audience on the Internet. Items.

At the close of 2011, FEMA reached out to the members of the public and asked them to resolve to be ready for the coming year. It advised that there were more billion-dollar natural disasters in 2011 than any previous year on record, ranging from Hurricane Irene to the devastating tornadoes that struck Alabama and Missouri. In 2012, FEMA changed the wording of its approach by now "urging" individuals and businesses to take

¹¹¹ Ibid., 22.

¹¹² Centers for Disease Control and Prevention, "Preparedness 101: Zombie Apocalypse," Centers for Disease Control and Prevention, accessed November 1, 2012, http://www.cdc.gov/phpr/zombies.htm.

^{113 &}quot;Zombie Apocalypse: CDC Denies Existence of Zombies Despite Cannibal Incidents," *Huffington Post*, June 1, 2012, accessed November 2, 2012, http://www.huffingtonpost.com/2012/06/01/cdc-denies-zombies-existence_n_1562141.html.

¹¹⁴ Centers for Disease Control and Prevention, "Preparedness 101: Zombie Apocalypse."

¹¹⁵ Federal Emergency Management Agency, "Resolve to be Ready in 2012—Toolkit," Federal Emergency Management Agency Ready, accessed August 21, 2012, www.ready.gov/sites/default/files/documents/files/2012_R2BR.pdf, 2.

action to prepare themselves in advance of severe weather and hurricanes. Via its website, it offered individuals the opportunity to make a written pledge and become "Coalition Members." As such, members would "have access to exclusive resources and be able to collaborate with thousands of fellow members across the country." It appears counter-productive to make citizens jump through extra hoops to get to this valuable information that the government has been struggling to convey for over a decade. In short, most of these programs, such as Ready.gov and DHS.gov are simply an offering from the government to those who may be interested. Moving from a suggestion, to a recommendation, then to an urging is still simply not enough to motivate the majority of Americans, let alone first-responder organizations. These passive approaches to preparedness will not lead to a prepared nation.

In February of 2013, FEMA and the American Red Cross jointly published *Summary Report on Awareness to Action: A Workshop on Motivating the Public to Prepare*. This document related to a two-day workshop held in Washington, DC, on June 27–28, 2012 and concluded "the potential exists to significantly improve our preparedness messaging strategies," but that there was no "silver bullet" to this effort. The results of this workshop were not entirely surprising; in the leadership remarks, FEMA Administrator W. Craig Fugate stated that the 2011 FEMA National Household Survey provided disappointing results and that it was a "clear sign that changes should be made in preparedness messaging." National FEMA preparedness surveys since 2003 have indicated that the percentage of households that have engaged in preparedness by developing a plan and building a kit have not increased over time, 121

¹¹⁶ Federal Emergency Management Agency, "Get Involved," Federal Emergency Management Agency Ready, accessed August 20, 2012, http://www.ready.gov/pledge.

¹¹⁷ Federal Emergency Management Agency and American Red Cross, *Summary Report on Awareness to Action: A Workshop on Motivating the Public to Prepare*, February 2013, Federal Emergency Management Agency, http://www.fema.gov/media-library/assets/documents/31359?id=7124.

¹¹⁸ Ibid., 3.

¹¹⁹ Ibid, 22.

¹²⁰ Ibid. 9.

¹²¹ Ibid. 10.

despite the on-going campaign. The report fell short of calling the most recent efforts a failure, but clearly stated that change is needed.

G. SUMMARY OF LITERATURE

The literature review has revealed that preparedness is the necessary element needed for the survival of our country. It has also revealed that this necessary element has been left as optional for nearly everyone, including first responders, and that this is a problem. There are many interesting ideas on the table, but what is missing is a driving force behind the synthesis and implementation of these interesting ideas.

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IV. EXISTING PROGRAMS AND INTERESTING IDEAS

A. THE STATUS QUO

Research for this thesis has led to the finding that responder family preparedness, specifically organizational responsibility for ensuring this readiness, is miniscule or perhaps even non-existent in our country. By and large, first-responder agencies are not mandating family preparedness for their employees. If any such programs exist, they are not well known or prevalent in the literature. First responders are essentially no different than the rest of the citizenry in that their level of preparedness remains a question, albeit a very important one. Research has demonstrated that citizens, including first responders and their families, are not responding to this country's preparedness messaging. The current state of affairs in the preparedness realm is one of government suggestions, recommendations, urgings, and offerings resulting in widespread inaction, leading to an overall lack of preparedness nationwide.

1. Citizen Corps

Citizen Corps, for instance, is the primary government strategy to get citizens thinking about and moving toward preparedness. It is also an example of a mediocre homeland security offering and illustrates the status quo in America. In January of 2002, the program was created under the FEMA as a "nationwide grassroots strategy to achieve greater community safety, preparedness, and resilience." The mission of Citizen Corps was and remains "to harness the power of every individual through education, training, and volunteer service to make communities safer, stronger, and better prepared to respond to the threats of terrorism, crime, public health issues and disasters of all kinds." The program has been in existence for over a decade, and FEMA has relied on a questionable approach, explained in more detail below, to purporting its success. In

¹²² Citizen Corps, "About Citizen Corps: History of Citizen Corps," Citizen Corps, accessed August 5, 2012, http://www.citizencorps.gov/citizencorps/index.shtm.

¹²³ Ibid.

reality, Citizen Corps has underperformed due to a variety of shortcomings including a low level of funding, a failure to create and implement a strategic plan, and a resistance to effectively evaluate the effort.

As previously noted, Citizen Corps has lacked any substantial funding. For example, in 2009 FEMA dedicated \$5.8 million, or only 0.5 percent of its annual budget, to community preparedness programs of which Citizen Corps was only a part. 124 FEMA made it incumbent on individual Citizen Corps councils throughout the country to apply for additional grant funding to initiate and sustain their programs. Grant funding, specifically for Citizen Corps councils, has experienced a downward trend in budget appropriations since its original allocation of \$40 million in 2004. 125 By FY 2010, it was down to \$13 million, then down to \$10 million in FY 2011. 126 Zero funds were specifically allocated in FY 2012 and FY 2013.¹²⁷ The U.S. Office of Management and Budget (OMB) explained that 16 national preparedness programs would compete for grant funding under one umbrella entitled "National Preparedness Grant Program." 128 OMB cited a need for "streamlining and simplifying programs that overlap and, over time, have become disparate, confusing, and sometimes duplicative." They also noted that the new grant program will require measures of effectiveness to be included in the grant proposal and that these grants will be tracked from inception to completion to demonstrate their impact. ¹³⁰

In 2010, the U.S. Government Accountability Office (GAO) released a report to Congress concerning FEMA's challenges regarding the integration of community

¹²⁴ U.S. Government Accountability Office [GAO], *Emergency Preparedness: FEMA Faces Challenges Integrating Community Preparedness Programs into Its Strategic Approach* (Washington, DC: U.S. Government Accountability Office, 2010), www.gao.gov/new.items/d10193.pdf, 3.

¹²⁵ White House, "FY 2004 Budget Fact Sheet," news release, October 1, 2003, http://georgewbush-whitehouse.archives.gov/news/releases/2003/10/20031001-7.html.

¹²⁶ U.S. Office of Management and Budget, *Cuts, Consolidations, and Savings: Budget of the U.S. Government* (Washington, DC: U.S. Office of Management and Budget, 2012), http://www.whitehouse.gov/sites/default/files/omb/budget/fy2013/assets/ccs.pdf, 138.

¹²⁷ Ibid.

¹²⁸ Ibid.

¹²⁹ Ibid.

¹³⁰ Ibid.

preparedness programs into its strategic approach.¹³¹ GAO reported that there were issues with the validity of data provided by FEMA; GAO contacted 17 supposedly active Citizen Corps councils and discovered that five of them were, in fact, inactive.¹³² GAO subsequently learned that FEMA relied on each state to individually provide information on its active councils and that there was no verification component in place. FEMA unsuccessfully attempted to rectify this issue with the GAO by providing a draft of a strategy to be used to verify that information. GAO rejected the draft due to its lack of specificity as to what steps FEMA was going to take to ensure that it possessed accurate data concerning the number of active councils.¹³³ Citizen Corps, in its 2009 Annual Report, claimed that there were over 2,400 councils "registered" and that these councils represented 79 percent of the U.S. population.¹³⁴ GOA's small sampling of 17 councils revealed a significant discrepancy of nearly 30 percent, further bringing into question FEMA's claim of success.

The GAO report continued to criticize FEMA and advised Congress that FEMA lacked a strategy to demonstrate how its community preparedness programs fulfilled the need of the National Preparedness System (NPS). ¹³⁵ FEMA was required under the Post-Katrina Emergency Management Reform Act of 2006 to establish the NPS to ensure that the U.S. possessed the ability to respond to natural and man-made disasters. GAO explained that FEMA was using an operating plan rather than a strategic plan for its implementation of the Citizen Corps program and that this approach lacked any method for gauging progress. ¹³⁶ The GAO explained that qualitative analysis, rather than just sheer numbers, would be valuable to FEMA leadership and other government decision makers. ¹³⁷ The GAO further noted that twice in 2009, it had brought this concern of

¹³¹ GAO, Emergency Preparedness: FEMA Faces Challenges.

¹³² Ibid., 9.

¹³³ Ibid., 11.

¹³⁴ Citizen Corps, 2009 Annual Report, accessed October 16, 2013, http://home.citizencorps.gov/annreports/arindex.shtm, 2.

¹³⁵ GAO, Emergency Preparedness: FEMA Faces Challenges, 16.

¹³⁶ Ibid.,

¹³⁷ Ibid., 21.

having a strategic plan to the attention of FEMA, which agreed with its finding. However, FEMA failed to provide GAO with any "timelines and milestones" for completing this strategic plan.¹³⁸

The situation did not appear much different in 2012; FEMA was still claiming the success of Citizen Corps¹³⁹ while using questionable metrics. The *National Preparedness Report*, dated March 2012, indicated that Citizen Corps councils existed in more than 1,100 local, county, and tribal jurisdictions and represented over 178 million people that constituted 58 percent of the U.S. population.¹⁴⁰ Upon further reading, the report also indicated that these councils have trained 428,500 citizens "in activities that directly support community resilience."¹⁴¹ Using Kindt's method previously highlighted in the above literature review, one discovers that this is less than 389 citizens per council or only .2 percent of the 178 million people that the councils claim to "represent." Additional analysis of this type would have been possible if more information were available on Citizen Corps; to date, FEMA has only published three annual reports for Citizen Corps in 10 years (2002, 2004, and 2009).¹⁴²

Thus, far, the only indicator of the success or failure of the Citizen Corps has been in the form of problematic quantitative data. FEMA has demonstrated that the Citizen Corps program is low on its list of priorities. It is so low that FEMA has not adequately funded the program, has not developed a strategic plan to implement it nationwide, and has failed to evaluate it properly. The quantitative data that has been provided as a measure of Citizen Corps' success is undeniably flawed and presented by FEMA in a biased manner. This lack of effective planning, implementation, and evaluation has set FEMA back 10 years in its attempt to collaborate with the U.S. citizenry.

¹³⁸ Ibid., 19.

¹³⁹ Paulette Aniskof, "Celebrating Ten Years with Citizens Corps," *FEMA Blog*, January 25, 2012, http://blog.fema.gov/2012/01/celebrating-ten-years-with-citizen.html.

¹⁴⁰ Federal Emergency Management Agency, *National Preparedness Report* (Washington, DC: Federal Emergency Management Agency, 2012), http://www.fema.gov/library/viewRecord.do?id=5914, 26.

¹⁴¹ Ibid.

¹⁴² Citizen Corps. 2009 Annual Report.

2. The Potentially Ready Responder

By moving from just citizen preparedness to responder preparedness, the U.S. government has acknowledged that first responders are different from the general public. On the surface, this seems to be a departure from the status quo and a significant step forward in the direction of responder family preparedness. The government has called upon responders and their agencies to make efforts to be adequately prepared; the Ready Responder initiative was launched by FEMA and DHS in 2011 under the belief that communities cannot be prepared unless their responders and responder families are first adequately prepared. Having an emergency supply kit, a detailed family plan, and being informed about what to do in potential emergencies constitutes being prepared in this program. Ready Responder specifically targets first responders and their agencies and lists considerations for both on its website.

Responders are cautioned that their jobs may require them to be separated from their families for extended periods of time without the knowledge as to where their family is located or how their family is managing without them. The program stresses the importance of preparation at home and working with friends, neighbors, and extended family to ensure that the responder family is cared for in the responder's absence. Preparedness is listed as the key to reducing both responder and family stress and uncertainty during a disaster. It is also listed as an ingredient in allowing responders to properly focus on their job to increase performance and safety. 146

Similarly, agencies are cautioned that their employees may not respond for duty if they have questions or uncertainties about their family's safety. The program recommends the formation of policy to address responder family preparedness. If such policy exists, it recommends an analysis concerning proper planning and preparation in

¹⁴³ Federal Emergency Management Agency, *Ready Responder Toolkit*, 1.

¹⁴⁴ Ibid 10

¹⁴⁵ Federal Emergency Response Agency, "Ready Responder," accessed August 27, 2013, http://ready.gov/responder.

¹⁴⁶ Ibid.

this area. It is also suggested that agencies make these policies clear to their responders and that they sponsor, in house, such preparedness programs. 147

Ready Responder does provide a detailed framework for the facilitating of both individual responder family preparedness and of agency-sponsored programs and policy. As noted above, this seems like a significant change in the status quo. Sadly though, like Citizen Corps and so many other programs, it represents just another government offering and, therefore, remains in the optional category. This is a problem.

B. INTERESTING IDEAS AND SMART PRACTICES

1. The Truly Ready Responder

It is significant to note that Ready Responder is a powerful tool and an interesting idea. The problem lies in the fact that it seems to be underutilized. If a responder agency were to require family preparedness, the Ready Responder program could take on huge significance and provide a unified path forward for the responder community to follow. The program is very comprehensive, indeed, and provides a plethora of information and thought provoking ideas. It also provides a structured planning framework necessary for getting both responders and their agencies minimally prepared. This framework is packaged up in a 77-page document entitled the *Ready Responder Toolkit*, which contains form letters, templates, checklists, and presentation materials. It is scalable and highly adaptable to be used by virtually anyone in the first-responder community and even beyond. Everything in the toolkit was designed to be adopted, in part or in whole, by individual agencies and responders as a smart option once their buy-in was obtained. This would provide comprehensive and consistent planning in any responder agency whether it is at the city, county, state, or even federal level. In this respect, the Ready Responder program represents a potential smart practice when put into action.

¹⁴⁷ Ibid.

¹⁴⁸ Federal Emergency Management Agency, Ready Responder Toolkit.

2. Reprioritizing Responder Preparedness

Christopher Kelenske also realized the value and potential of the Ready Responder initiative, even though it was only in its pilot phase. ¹⁴⁹ In fact, he views this initiative as a standardized path toward achieving nationwide responder family preparedness. ¹⁵⁰ In his work, he claims that ensuring responder family preparedness is an agency responsibility. Kelenske determined that there is a lack of awareness and funding hindering these efforts. He advises that responders and responder agencies need specific funding and education to keep them "resilient and fully operational during a disaster." ¹⁵¹

For Kelenske, responder family preparedness is different from general citizen preparedness due to the stress related to responders having to help others when their own families may not be adequately prepared or receiving any help. He states that responder preparedness and the strengthening of their resilience should be elevated to a national priority in our country and that funds be shifted from other existing programs. Kelenske recommends using the Ready Responder program and proposes a method for financing this effort through the creation of an Emergency Responder Resilience Grant Program (ERRGP). He suggests that the Homeland Security Grant Program (HSGP) under DHS create this funding stream. The recommendation is an interesting idea since funding is likely to be a major obstacle for many, if not most, responder agencies.

Personal preparedness for responders, according to Kelenske's recommendations, "should be implemented as a component of annual training, job readiness, and performance management." He developed a comprehensive plan for getting responder families prepared through their direct engagement in order to educate them on policies

¹⁴⁹ Kelenske, "Emergency Responder," 77.

¹⁵⁰ Ibid., 79.

¹⁵¹ Ibid., 77.

¹⁵² Ibid., 78.

¹⁵³ Ibid., 77–78.

¹⁵⁴ Ibid., 77.

¹⁵⁵ Ibid., 75.

and available support during a disaster. His plan advances the requirement of 72-hour preparedness kits for both the responders and their families. Written plans for the families, coupled with web-based training for the responder and available to family members, are also included in his advanced preparation. To measure effectiveness, these efforts would be tested during realistic drills and exercises that include family members. These are all interesting ideas worthy of consideration.

To assist in implementing this plan, Kelenske recommends taking a "community approach." The community he is referring to consists of all first responders and their families, regardless of agency or discipline. He explains that they all share common interests and similar concerns with the desire of solving this dilemma. Demonstrating his belief in the "diffusion of innovation theory," Kelenske recommends sharing successful innovations with the larger first-responder community. This is a sound recommendation and highlights the power of sharing information and the virtue of collaboration in the adoption of smart practices.

Kelenske's approach is straight-forward and puts the onus of responder family preparedness on the responders and their agencies themselves. He draws the line between citizen preparedness and responder family preparedness and makes an argument for this to be an elevated federal government priority. Realizing that the Ready Responder initiative needs a boost and an incentive to attract the attention of agency administrators, Kelenske recommends that DHS reprioritize responder family preparedness, moving it to a higher level of attention. He challenges DHS to reallocate funding to further this agenda. These are all powerful points.

¹⁵⁶ Ibid.

¹⁵⁷ Ibid., 75–76.

¹⁵⁸ Ibid., 75.

¹⁵⁹ Ibid., 74.

¹⁶⁰ Ibid.

¹⁶¹ Ibid.

¹⁶² Ibid., 77.

¹⁶³ Ibid., 78.

3. The Military Model

Kelenske's plan could be enhanced through the addition of a support element for responders and their families. Butler et al. were wise in their assessment that the military model of family support provides value for the first-responder community. ¹⁶⁴ The USAF Family Care Program, as highlighted by Kindt, requires that service members possess a plan for the care of their families in the event that they are called for deployment. ¹⁶⁵ Members who are married to other service members, single parents, and those with family members who have special needs must have continuously reviewed, feasible plans to support their deployment to ensure that the service member remains immediately deployable. According to Kindt, the intent of these plans is to minimize undue stress on the service members while they are not home. ¹⁶⁶ Though there are clear differences between warfighters and first responders, such as deployment to a distant war zone, there exist similarities in their families having to potentially face a disaster without their presence or protection. This is an interesting idea and applicable to the first-responder community.

4. Family Support Measures

Nancy Demme, through her 2007 thesis at CHDS, also addressed family support mechanisms and came up with low-cost solutions to making this happen. She determined that police, when faced with responding to a bioterrorism event, would have major concerns for their families and that this could serve as an impediment to their response. To remedy this problem she recommended, in part, that agencies form a family support unit (FSU) similar to that commonly used in the fire service. Demme explained that deployed firefighters in urban search and rescue (USAR) teams have their families cared for by FSU personnel. Demme proposed that FSU members check in with

¹⁶⁴ Butler, Panzer, and Goldfrank, 113.

¹⁶⁵ Kindt, Building Population, 13.

¹⁶⁶ Ibid.

¹⁶⁷ Demme, "Government Expectations," 24.

¹⁶⁸ Ibid., 56.

responder families on a daily basis to assess their needs. She stated that FSU could bring necessities, such as food, water, and medicine to these families and also transport them to doctor visits or medical facilities.¹⁶⁹

To staff FSU, Demme recommended pulling existing personnel from other assignments that would be affected by a biological incident; she cited school resource officers, crossing guards, and court officers as prime examples since schools and courts would be closed.¹⁷⁰ In addition, Demme stated that extra FSU personnel could be drawn from light duty officers, retired officers, and civilian volunteers.¹⁷¹ This is an interesting idea and a wise use of available staffing during a disaster. It is also a wise financial move since these personnel are available employees and not an additional expenditure.

To test the effectiveness of FSU, Demme suggested that the agency conduct a dry run—a two-day exercise to test the capabilities. However, she conceded that it would be hard to replicate real conditions and that some details would have to be simulated. Demme stated that a large snow storm would replicate many of the conditions that would exist in a large-scale disaster, such as schools being closed, children staying home, families needing emergency supplies, and officers leaving their families for longer than usual periods of time. A test on a smaller-scale incident would greatly assist in identifying any possible weaknesses or areas for improvement for future large-scale incidents.

In addition to the creation of a family support element, Demme also recommended that responder agencies record and retain important family information in a standardized format. ¹⁷⁴ The information collected was to be kept simple with categories

¹⁶⁹ Ibid.

¹⁷⁰ Ibid., 61.

¹⁷¹ Ibid.

¹⁷² Ibid., 66–67.

¹⁷³ Ibid.,

¹⁷⁴ Ibid., 61.

such as "name, address, age, schools, allergies, doctors, special needs, contact information, etc." She suggested that it be updated when changes occur or annually at a minimum. This is another simple, yet effective idea.

5. The Not-So-Cowardly Lion

Ready Responder, Kelenske, and Demme represent recent thinking concerning how to get first responders and their families prepared. Each gives potential solutions and encourages responder agencies to take a larger role in getting their personnel prepared. This represents a real possibility; agency by agency, through collaboration, responder families could achieve preparedness. Sometimes it takes a reexamination of the status quo to adjust efforts and motivate the right individuals. This is currently underway in the realm of citizen preparedness.

In the 2013 FEMA and American Red Cross *Summary Report on Awareness to Action: A Workshop on Motivating the Public to Prepare*, the top recommendations for defining preparedness success were survival, self-sufficiency and empowerment, and changing the social norm.¹⁷⁶ FEMA Administrator Fugate stated that a new social norm of "being prepared" would be his ideal outcome.¹⁷⁷ He stated that changes were needed in current messaging strategies; the report pointed to the idea that segmented messaging would be the new strategy as opposed to a blanket message continually repeated to the American public.¹⁷⁸ Along these lines, the summary report highlighted Dr. David Abramson of the National Center for Disaster Preparation at Columbia University. He analyzed FEMA's surveys and concluded that there are differences in the perceived roles of citizens in a disaster when it comes to messaging.¹⁷⁹ He categorized people as either "lions," "lone wolves," or "lambs." Lions comprised 20 percent, and these individuals perceived themselves as destined to lead others. Lone wolves, 60 percent of those

¹⁷⁵ Ibid..

¹⁷⁶ Federal Emergency Management Agency and American Red Cross, Summary Report, 5.

¹⁷⁷ Ibid., 9.

¹⁷⁸ Ibid., 5.

¹⁷⁹ Ibid., 13.

¹⁸⁰ Ibid.

surveyed, stated that they would depend upon themselves. Expecting others to show them the way and provide them with assistance, lambs comprised the final 20 percent. ¹⁸¹

The above workshop participants agreed that segmenting the intended audiences to promote the preparedness message may be an effective strategy, and they utilized Abramson's three categories ¹⁸² to explain how they would approach the varied groups. The participants concluded that targeting the lone wolves could provide the biggest return on investment since it was the largest group and that lions would emerge from this group. They also viewed lions as "low hanging fruit" and "potential force multipliers." ¹⁸³ The same report mentioned using "trusted messengers" as a conduit for spreading the preparedness message into the community; local first responders were listed in this category along with the faith community, employers, educators, elected officials, medical officials, scientists, and academia. ¹⁸⁴

By virtue of their career choice, first responders are most definitely lions. On a daily basis, they interact with a broad range of citizens while expecting to take action to protect and care for others. By developing a culture of preparedness within the first-responder community, these envoys would permeate their surrounding communities and demonstrate the confidence and strength that comes along with being prepared. In this fashion and echoing the recommendation of the Ready Responder program, these individuals could serve as role models for preparedness. These ready responders would have already thought about preparedness for their own families, made critical decisions, and understood the importance of continually reevaluating their strengths and weaknesses.

This realization that certain segments of society will embrace preparedness and that others simply will not is an interesting idea. By not attempting to sell everyone on

¹⁸¹ Ibid..

¹⁸² Ibid.

¹⁸³ Ibid, 19.

¹⁸⁴ Ibid., 21.

¹⁸⁵ Federal Emergency Management Agency, *Ready Responder Toolkit*, 18.

preparedness, the government can focus its efforts and funding on matters that may actually result in a higher rate of return. First responders and their families should be the first priority.

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V. ISSUES UNCOVERED BY RESEARCH

A. INTRODUCTION

Though peripheral at first glance, the issue of changing family structures and women entering the workforce as first responders was found to be germane to this study and worthy of inclusion. In addition, parallels from other government preparedness campaigns provided crucial support for the belief that "optional" is a problem and that some measures need to be mandatory to be effective. For instance, the federal funding and eventual mandate for police officers to wear bulletproof vests provides insight into the idea of effective policy development. Seatbelt use, like that of bulletproof vests, was also optional until government stepped in. By mandating seatbelt use, state governments, with some prompting and incentives 186 from the federal government, took a significant step and achieved results. 187

B. CHANGING FAMILY STRUCTURES

Lewis M. Killian's 1952 article accurately described the potential dilemma faced by first responders during his time. These men were confronted with the possibility of having to choose between first serving their wives and children during a catastrophe or serving their communities first. His conclusion that it may be impossible for responders to serve in two roles at the same time was relevant then and has taken on deeper significance ever since. Killian's view of the problem was naturally in the context of his time, and much has changed in the last five decades. This increasing significance of Killian's claim is due in part to the changing family structures in America and the acceptance and integration of women into roles as first responders.

In the 1950s, first-responder roles were male-occupied; firemen and policemen were just that, men. In a domestic relationship, females usually took on the role of

¹⁸⁶ Lilliard E. Richardson, Jr. and David J. Houston, "Federalism and Safety on America's Highways," *Publius* 39, no. 1 (2009): 117–137.

¹⁸⁷ National Highway Traffic Safety Administration, U.S. Department of Transportation, "Traffic Safety Facts, Seatbelt Use in 2012—Overall Results," November 2012, accessed July 16, 2013, http://www-nrd.nhtsa.dot.gov/Pubs/811691.pdf.

"homemaker" and focused their efforts on caring for their children. This was the era of June Cleaver of *Leave it to Beaver* and Harriet Nelson of *Father Knows Best*. This predominant family structure was the societal norm and framed Killian's problem and analysis. Since that time, many females have left the house and currently comprise approximately half of the American workforce. This number is up from 33.9 percent in 1950. In addition, this trend has been especially true for women with young children. In 1948, approximately 17 percent of married mothers were active participants in the American workforce. In 1995. As a result, today, there is a much greater reliance on third parties and daycare providers to care for children while both parents are at work. In 2010, in the United States, there were only five million stay-at-home mothers In working husbands in the U.S. out of a total of 157.2 million women, In 1948 million of them being mothers of all ages, In 1956. In million of them being married.

In addition to entering the workforce, females have transitioned into the first-responder community as firefighters and police officers. These gender-neutral terms are a societal indicator that these roles are no longer viewed as exclusively for men. The first

 $^{^{188}}$ "The Harried Life of the Working Mother," October 1, 2009, Pew Research, Social & Demographic Trends, http://www.pewsocialtrends.org/2009/10/01/the-harried-life-of-the-working-mother/.

¹⁸⁹ Bureau of Labor Statistics, U.S. Department of Labor, "Changes in Men's and Women's Labor Force Participation Rates," January 10, 2007, accessed August 22, 2013, http://www.bls.gov/opub/ted/2007/jan/wk2/art03.htm.

¹⁹⁰ Rose M. Kreider and Diana B. Elliott, *Historical Changes in Stay-at-Home Mothers: 1969 to 2009* (Washington, DC: U.S. Census Bureau, 2010), 4.

¹⁹¹ Sharon R. Cohany and Emy Sok, "Trends in Labor Force Participation of Married Mothers of Infants," *Monthly Labor Review* (February 2007), 9.

¹⁹² Ibid.

¹⁹³ U.S. Census Bureau, "Families and Living Arrangements Main," U.S. Census Bureau, accessed August 10, 2013, http://www.census.gov/population/www/socdemo/hh-fam.html.

¹⁹⁴ U.S. Census Bureau, "Profile America Facts for Features: Women's History Month: March 2011 (CB11-FF.04)" January 26, 2011, U.S. Census Bureau, accessed August 10, 2013, http://www.census.gov/newsroom/releases/archives/facts_for_features_special_editions/cb11-ff04.html.

¹⁹⁵ Ibid.

¹⁹⁶ U.S. Census Bureau, "America's Families and Living Arrangements: 2010," 2010, U.S. Census Bureau, accessed August 10, 2013, http://www.census.gov/population/www/socdemo/hhfam/cps2010.html.

female police officer was hired in 1891.¹⁹⁷ Slowly over the years, other female police officers were hired throughout the country. For a long time, they were typically assigned desk duties and other clerical work while wearing uniforms consisting of high-heeled shoes and skirts.¹⁹⁸ It was not until 1969 that two female police officers left the office and went on patrol in Indianapolis.¹⁹⁹ This signaled the beginning of the movement toward women doing the same job as their male counterparts. Today, women represent 14 percent of the total number of police officers in the U.S.²⁰⁰ The U.S. Census indicated that in 2009 there were 111,000 female police officers and 9,700 female firefighters in America.²⁰¹

There are now cases with both parents fulfilling the role of first responder, and the potential exists for them to be simultaneously conflicted between their family and work roles. Both responders could be subject to recall by their agencies that are also heavily depending on them. The alternative of leaving the children at home with their mother may no longer be an available option. In addition, daycare providers typically close during times of inclement weather such as hurricanes and blizzards, leading to the likelihood that they would not remain an available option during a non-weather-related community crisis. This makes planning all the more important.

Another aggravating factor and important aspect of change since Killian's time is the number of single parents that are raising children. Divorce rates more than doubled in the second half of the last century; between 1950 and 1990, this number rose from 11 to

¹⁹⁷ National Law Enforcement Officer Memorial Fund, "Important Dates in Law Enforcement History," last modified March 2009, National Law Enforcement Officer Memorial Fund, accessed August 10, 2013, http://www.nleomf.org/facts/enforcement/impdates.html.

¹⁹⁸ Dean Scoville, "The First Female Patrol Officers," *Police: The Law Enforcement Magazine*, September 21, 2012, accessed August 10, 2013, http://www.policemag.com/channel/women-in-law-enforcement/articles/2012/09/the-first-female-patrol-officers.aspx.

¹⁹⁹ National Law Enforcement Officer Memorial Fund, "Important Dates."

²⁰⁰ Scoville, "The First Female Patrol Officers."

²⁰¹ U.S. Census Bureau, "Profile America." Jeremy Greenwood and Nezih Guner, "Marriage and Divorce since World War II: Analyzing the Role of Technological Progress on the Formation of Households" (PCS Working Paper Series PCS 08-01, National Bureau of Economic Research, 2008), http://www.nber.org/papers/w10772.

23 divorces per 1,000 married women between the ages of 18 and 64.²⁰² Additionally, far fewer Americans are married today; 82 percent of Americans were married in 1950, compared to 62 percent in 2000 of the same category of females.²⁰³ In addition to this changing marital trend, many individuals are choosing to have children or adopt children outside of the institution of marriage, or even sometimes outside of a relationship. In 2011, 40.7 percent of all children born in the U.S. were born out of wedlock.²⁰⁴ In the same year, there were 13.6 million single parents raising children.²⁰⁵ Surely, a number of first responders, too, are single parents and sole providers for their children. This family structure issue presents a twist on that described by Killian and makes for an even more complex dilemma with fewer alternatives. It is no longer just about leaving the children at home with their mother. Without careful pre-planning for these parents, there may be no other alternative available to simply not reporting for duty as a responder.

C. THE PROBLEM WITH OPTIONAL

There is a critical need for a mindset shift regarding how preparedness is being viewed, particularly within the first-responder culture. Currently, preparedness is seen as an option for everyone instead of a necessity. As demonstrated above, there are potential negative cascading effects for communities if their responders are among the unprepared. An examination of the U.S. government approach to individual preparedness illustrates that this current optional mindset will certainly not succeed in achieving widespread responder family preparedness without some type of intervention. This status quo approach reveals that there is a problem with optional.

If responder family preparedness is so important, the government should take it out of the "optional" category. This is not a new concept; the government has done it in

²⁰² Jeremy Greenwood and Nezih Guner, "Marriage and Divorce since World War II: Analyzing the Role of Technological Progress on the Formation of Households" (PCS Working Paper Series PCS 08-01, National Bureau of Economic Research, 2008), http://www.nber.org/papers/w10772, 1.

²⁰³ Ibid.

²⁰⁴ Joyce A. Martin, Brady E. Hamilton, Stephanie J. Ventura, Michelle J. K. Osterman, and T. J. Mathews, "Births: Final Data for 2011," *National Vital Statistics Reports* 62, no. 1 (2013), Centers for Disease Control and Prevention, http://www.cdc.gov/nchs/data/nvsr/nvsr62/nvsr62 01.pdf.

²⁰⁵ U.S. Census Bureau, "Profile America."

the past. Rocky Lopes, formerly of the American Red Cross, stated that successful awareness campaigns in America, such as seatbelts and anti-smoking, were successful because these campaigns were coupled with legislation. However, Lopes contended that readiness behavior cannot be legislated.²⁰⁶ This statement holds true for the American public in general; however, responder agencies can certainly mandate this behavior for their employees. They already do it with other such fit-for-duty requirements, such as weight and appearance standards, fitness testing, and continuing educational requirements.

1. Bulletproof Vest Analogy

This would not be the first time that DSP mandated an agency-wide individual preparedness requirement for its personnel. A simple analogy can be drawn between gokits and the wearing of bulletproof vests, otherwise known as bullet-resistance vests or body armor. Initially, many police agencies believed that it was a good idea for officers to wear vests. Though many agencies, due to the cost of several hundred dollars per vest, could not afford to provide them to all officers, they highly encouraged officers to purchase them on their own. Over time, there were many stories of officers walking away from what would have been fatal encounters due to the protection of their vest. Over the years, bulletproof vests were gradually provided, mostly through or in part by federal grants, and became a normal part of the uniform. Since 1999, over one million vests, totaling \$277 million in federal funds, were purchased by more than 13,000 police jurisdictions in the U.S. through the collaborative Bulletproof Vest Partnership offered by the U.S. Department of Justice. It is important to note that there was a string attached by the federal government in that the agencies had to develop "mandatory wear" policies to qualify for the funding. 207

During the 10-year period spanning from 2003 through 2012, a total of 1,540 police officers were killed in the line of duty in the U.S. The leading cause of death was

²⁰⁶ Hudson, *Emergency Preparedness*, 18.

²⁰⁷ Office of Justice Programs, U.S. Department of Justice, "Bulletproof Vest Partnership," Office of Justice Programs, accessed July 16, 2013, http://www.ojp.usdoj.gov/bvpbasi/.

gunfire with 564 officers being shot and killed.²⁰⁸ The wearing of bulletproof vests can and does mitigate this threat. As such, it is one proven method for lowering the risk of police officers being killed by a bullet. The National Institute of Justice reported that over 3,000 police officers have had their lives saved by bulletproof vests in the last three decades.²⁰⁹ The Bureau of Justice Assistance (BJA) reported, that, in FY-2012 alone, 33 police and/or correctional officers in 20 different states had their lives saved by their bulletproof vest.²¹⁰ Though this statistic includes correctional officers, it is clear that these saves represent a very small percentage of the 900,000 plus sworn police officers in the U.S.²¹¹ Numbers aside, this preparedness effort surely made a positive difference in their lives and that of their loved ones.

It should go without saying that bulletproof vests need to be worn in order for them to be effective in saving lives. Along this line of thinking, the Department of Justice attached the "mandatory wear" policies to gain compliance from officers receiving vests. This preparedness effort progressed from being something that was a good idea, to something highly recommended and even urged, yet still voluntary, to something mandated by the organization through policy. The reasoning behind the requirement was clear—wearing a bulletproof vest can save an officer's life.

DuPont, the creator of the lifesaving fabric Kevlar manufactured for the vests, sums it up: Kevlar is "about resilience, strength, saving the day, and helping keep people safe from harm." These ideals reveal a relatively new change in mindset within the policing community; however, there is clear evidence of a paradigm shift on a much broader scale. The first question many people ask after hearing about a police officer

²⁰⁸ National Law Enforcement Memorial Fund, "Causes of Law Enforcement Deaths," National Law Enforcement Memorial Fund, accessed July 16, 2013, http://www.nleomf.org/facts/officer-fatalities-data/causes.html

²⁰⁹ National Institute of Justice, Office of Justice Programs, "Body Armor," last modified July 12, 2013, National Institute of Justice, accessed July 16, 2013, http://www.nij.gov/topics/technology/body-armor/.

²¹⁰ Office of Justice Programs, "Bulletproof Vest Partnership."

²¹¹ National Law Enforcement Memorial Fund, "Law Enforcement Facts," National Law Enforcement Memorial Fund, accessed July 16, 2013, http://www.nleomf.org/facts/enforcement/.

²¹² DuPont Company, "Kevlar Brand," last modified 2013, DuPont Company, accessed July 2, 2013, http://www.dupont.com/products-and-services/fabrics-fibers-nonwovens/fibers/brands/kevlar.html.

being shot is: "Was the officer wearing a vest?" The public, too, has bought into this preparedness campaign and has an expectation that police officers are consistently wearing this protective equipment.

Similarly, go-kits can also play a role in keeping people safe and saving lives. As such, they need to become mandatory survival items in the first-responder community. This assessment of needs should follow the same path as bulletproof vests from suggested, to recommended, to highly encouraged, then supplied, and eventually mandated. Most police officers that wear bulletproof vests do not get shot. In fact, they have a low risk of being shot; however, they wear a vest to enhance their safety and realize that to go without one is not worth the risk to them or their families. Of course, it helps that their agencies do not give them the option. As demonstrated earlier, there is a problem with optional. This same risk-management logic needs to be applied to the go-kit and the family preparedness effort in general. Simply put, it is not worth the risk for responder families and, subsequently for responder organizations, to be unprepared. The benefit of having prepared responders outweighs the cost.

2. Seatbelt Analogy

Looking through this same preparedness optic, one realizes that DSP was already involved in another mandatory preparedness campaign besides bulletproof vests. Before it became the law to wear seatbelts in Delaware in 1992,²¹³ the decision had already been made to increase the safety and crash preparedness of DSP personnel through the mandate to wear seatbelts while operating divisional vehicles. The progression followed a similar path as described in the bulletproof vest example. It was deemed a good idea, encouraged at some point, and eventually required by the organization. Better crash preparedness was achieved through a policy mandate.

Seatbelts save lives, and there is plenty of evidence to support this fact; however, not everyone in the U.S. voluntarily joined in this preparedness effort. Despite the encouraging, urging, and public awareness campaigns launched by the government, many

²¹³ Department of Insurance, State of Delaware, "Implementation of Seal (sic) Belt Legislation," *Auto Bulletin* no. 8, (January 1992), Department of Insurance, accessed October 18, 2013, http://www.delawareinsurance.gov/departments/documents/bulletins/autobull8.pdf.

people refused, and still refuse, to buckle up. The U.S. government began with the assumption that citizens would buy into the crash preparedness logic, but it learned that voluntary compliance was not achieved on a broad scale. Mandated compliance was thought as the better option to increase overall seatbelt use. State governments began to tell citizens to be better prepared for a crash or face fines. In essence, the Click-It or Ticket campaign²¹⁴ is government's way of changing the mindset, one ticket at a time. Since all vehicles manufactured in the U.S. since March 1, 1967 are required to have seatbelts,²¹⁵ this mechanism for crash preparedness exists; citizens just need to make the effort to utilize the survival tools—the seatbelts. Seatbelt use has been steadily increasing from 58 percent in 1994 to 86 percent in 2012.²¹⁶ This is evidence that a mandate has a much higher rate of achieving preparedness as compared to a recommendation or urging.

One could argue that seatbelts differ from bulletproof vests in that there is a significant cost involved in the latter, whereas seatbelts are already provided. Again, a government mandate is responsible for seatbelts being installed in vehicles at all. This likely rested upon a government assumption that citizens would use them if installed. It can also be countered that citizens most likely paid for this equipment in increased costs of automobiles. A similar transition is currently underway in the mandated use of child safety restraints. Drivers are required to possess and properly utilize these devices to ensure crash preparedness for their child passengers. Since September of 2002, the U.S. government has required the lower anchors and tethers for children (LATCH) system to be included in manufacturing of all vehicles. This was done with the intent to ease child seat installation and avoid injuries due to improper usage.²¹⁷ Some vehicle manufacturers, such as Dodge, have started to equip some of their vehicles with

²¹⁴ State of Delaware, "2013 Click It or Ticket and Seat Belts," last modified May 16, 2013, State of Delaware, accessed October 18, 2013, http://ohs.delaware.gov/seatbelts.

²¹⁵ National Highway Traffic Safety Administration, U.S. Department of Transportation, "Federal Motor Vehicle Safety Standards and Regulations," National Highway Traffic Safety Administration, accessed September 10, 2013, http://www.nhtsa.gov/cars/rules/import/fmvss/.

²¹⁶ National Highway Traffic Safety Administration, "Traffic Safety Facts."

²¹⁷ National Highway Traffic Safety Administration, U.S. Department of Transportation, "Lower Anchor and Tethers for Children (LATCH) Restraint System," National Highway Traffic Safety Administration, accessed September 10, 2013, http://www.nhtsa.gov/Safety/LATCH.

integrated booster seats for small children as standard equipment,²¹⁸ but this has not yet been mandated by the government.

It is a fact that the U.S. government has intervened in the past when safety measures were not being embraced by the public; seatbelts serve as the prime example. It is also a fact that the government has gone beyond simply urging police officers to wear vests; they made it happen by providing funding and issuing mandates that officers wear those vests. Like the U.S. government in the above cases, local and state governments need to realize that this policy gap concerning first-responder families is a liability to our homeland security on every level. They should move toward directing resources to fix it through policy and implementation. This is an individual agency responsibility; however, the U.S. government has a stake and can provide additional resources and funding.

D. SUMMARY OF ISSUES UNCOVERED

The above issues were uncovered through research on the topic of responder family preparedness. Killian's potential dilemma of role abandonment was originally presented in the time and space of 1952. Since then, much has changed and not in the favor of responders experiencing any less potential role conflict; quite the contrary is the modern case. Both the wearing of bulletproof vests by police officers and seatbelts by vehicle occupants represent successful major government preparedness campaigns. These movements were successful because they achieved an effective paradigm shift toward increasing safety through the adoption of smart practices. This mindset shift was, no doubt, considerably aided by a mandate to comply and by the removal of the behavior from the optional category. In some instances, as demonstrated above, there is a problem with optional, and responder family preparedness is one of them.

²¹⁸ Dodge, "2013 Journey," last modified 2013, Dodge, accessed September 10, 2013, http://www.dodge.com/en/2013/journey/interior/.

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VI. PROPOSED POLICY AND IMPLEMENTATION

A. INTRODUCTION

The Delaware State Police (DSP) needs to fully commit to ensuring that troopers and their families are adequately prepared to live through a large-scale disaster via a mandate of family preparedness. Both the physical and mental needs of the troopers must be addressed through the development and execution of a comprehensive strategy to achieve this end. The following provides a holistic approach to achieving minimal preparedness and building resilience at a relatively low monetary cost. The strategy is comprised of three parts. The first part is the development of a system to collect family information that adequately documents responder family data, plans, and special needs. The second involves the creation of family liaisons to serve as the bridge between deployed troopers and their families. The third and final part is accomplished through the issuing of "go-kits," which include the essential equipment recommended by the U.S. government to survive without government assistance for a few days.

B. FAMILY INFORMATION SYSTEM

It is not only wise, but also essential for the division to know what family concerns troopers physically leave behind when they report for duty during a crisis. These same issues and concerns are what they bring mentally with them when they respond. Simple details contained in a basic and standardized emergency plan, such as contact information, the intended location of family members, and any special needs, can document very valuable information and provide the last minute assurance that everything is under control. The plan also provides a good starting point for the trooper to make the transition into work mode.

The military's method, as noted by Kindt,²¹⁹ holds significant value for demonstrating the importance of standardizing this important information and making it available to DSP. Kindt highlighted the requirement to have these plans in place for all

²¹⁹ Kindt, *Building Population*.

service members subject to deployment, DSP's version of essential personnel. He noted that such members with extraordinary circumstances such as dual service member parents, single parents, and caregivers for family members with special needs, necessitate a higher level of review to assess and ensure their availability for deployment. Kindt is a vocal advocate of utilizing proven strategies from the military in non-military applications. This concept is a prime example of something that DSP can certainly use and should adopt.

As Kelenske points out, the Ready Responder program has great potential and provides the framework²²² for establishing a standardized approach to achieving nationwide responder family preparedness.²²³ Since the *Ready Responder Toolkit* was built with just this purpose in mind, much of the planning work has already been done for DSP. The toolkit is intended to be adopted and/or modified, in whole or in part. DSP can certainly benefit from this existing structure.

The collected information can be entered and stored on a web-based form that can rapidly and readily be developed, in house, by the DSP Information Support Section. Like numerous other DSP applications, this Family Preparedness Information form could be accessed by troopers via the DSP Intranet and easily updated, while being similarly reviewed and evaluated by administrative personnel. Hard copies could also be kept in the event of an electronic system failure. Using Demme's recommendation, this review process needs to be periodic, yearly at a minimum, 224 to account for unanticipated disasters. However, anticipated emergencies, such as impending hurricanes and winter storms, provide the impetus to further evaluate the trooper family preparedness status. The Planning and Research Section, which is located at DSP-HQ and includes inspection and accreditation responsibilities, would be a natural fit to oversee and manage this program. The section already conducts annual personnel, equipment,

²²⁰ Ibid., 13.

²²¹ Ibid., 15.

²²² Kelenske, "Emergency Responder," 3.

²²³ Ibid., 79.

²²⁴ Demme, "Government Expectations," 61.

paperwork/administrative inspections statewide. These inspections would also be an appropriate mechanism to ensure that all family preparedness plans and information are current. The system would be engineered to encourage continuous updates, but the annual inspections would act as a failsafe to ensure that the information on file is reviewed and validated for accuracy.

This information collection system does not need to be overly complicated to be effective. It should capture the trooper's dependent information, including current addresses and telephone numbers. Other emergency contact information, such as that of close friends and nearest relatives, as well as alternate evacuation addresses, should also be documented. Along with this standard information, special needs information should be recorded and highlighted so that special plans and considerations can be given to make accommodation for these non-typical needs. Special needs may include scenarios, such as individuals with limited mobility, oxygen tanks, and other significant medical conditions necessitating ongoing treatments or prescribed medication. Such examples include chemotherapy, insulin injections, kidney dialysis, and respiratory therapy. Since much of this information is considered personal and confidential, the information system needs to be protected and partitioned so that troopers can view only their entered information and not that of their co-workers. Those troopers with administrative oversight or management responsibilities will have access to all information with the requirement that this information only be used for the intended purpose.

As mentioned above, the information collected on the web-based forms will ensure that troopers have thought about preparedness, made decisions, documented those decisions, and provided DSP with pertinent information and plans concerning the welfare of their families during a time of crisis. DSP Headquarters, using the standardized format, can review and evaluate these plans for all troopers using the same criteria statewide to ensure that this is getting accomplished and that adequate and proper information is being documented. For example, a trooper with family members in an adjacent state, out of harm's way, who has opted to relocate his/her family during an anticipated hurricane affecting Delaware, would be known by DSP to be much better prepared to work during the hurricane than a single trooper with a small child who normally relies on a daycare

provider in the affected zone. A trooper who had not given the matter much thought would be required to think about it, for everyone's benefit.

C. FAMILY LIAISON TROOPERS

Once away from their loved ones, the troopers and their families will be connected through the newly designated Family Liaison Troopers. These specialized cross-trained troopers will have the sole responsibility of being the bridge between the trooper and his/her family during these times. In reality, the family is not the only party who will possibly be in harm's way during this event. The liaisons will ensure effective two-way communication since the welfare of the troopers will also be on the minds of their families. It is important to note that these liaisons are part of the DSP family; therefore, their compassion and commitment can be expected to be at the highest levels since their loved ones could share the same dilemma.

Following the idea proposed by Demme in the creation of her Family Support Unit, DSP Family Liaison Troopers will be established as a part-time unit and members will be selected from existing DSP personnel.²²⁵ This would be consistent with the staffing of other part-time positions, such as SCUBA divers, hostage negotiators, and bomb technicians. Fifteen troopers would be a preferable unit complement; that number would provide five liaisons per county drawing membership from throughout the state. Again, following Demme's line of thinking, it would be wise to staff these positions or provide support to them though the 25 existing school resource officers (SROs) positioned throughout the state. Since most schools would be shut down during a crisis, ²²⁶ only to be reopened as evacuation shelters, the SROs would provide the much-needed staffing and support in this area without depleting patrol or investigative units. Another existing part-time unit, the DSP Critical Incident Stress Management (CISM) team could enhance the overall effectiveness of the liaisons and step in when their specialized skills are needed. CISM is comprised of 13 troopers and six civilians trained in accordance with the International Critical Incident Stress Foundation, which has the

²²⁵ Ibid., 66.

²²⁶ Ibid., 64.

mission of minimizing the harmful effects of job-related stress, traumatic stress, and personal stressors on DSP personnel and other emergency responders.²²⁷

DSP would internally develop a training curriculum. Cost would be very minimal and would not be an issue impacting the creation of these positions. Similarly, ongoing and updated training would be conducted semi-annually to keep the liaisons current in their part-time roles. This training would include scenarios and role-playing to exercise and evaluate the liaisons' skills. In addition, the liaisons could be kept abreast of any informational or programmatic changes in the interim through the existing DSP intranet and statewide email system.

D. ISSUED GO-KITS

To avoid any speculation as to whether troopers' families are adequately equipped physically, DSP will issue standardized "go-kits" to all troopers as part of their issued gear. These kits will be inventoried and inspected yearly in the same fashion as other preparedness equipment such as gas masks and personal protective clothing. This type of inspection is already part of the DSP culture, as troopers already have their uniforms, weapons, patrol vehicles, and required vehicle contents inspected and documented bimonthly by their immediate supervisors.

The kits will contain the essentials recommended by FEMA such as water containers, non-perishable food, flashlight, hand-crank radio, first-aid kit, and toiletries, among other items. An adequate kit for a family of four retails commercially for approximately \$150–200. Food and water supplies can be supplemented for larger families as necessary. Go-kits are comprised of everyday items and off-the-shelf goods; therefore, they can be rapidly assembled and distributed to troopers. The key is assembling and distributing them well before an impending or sudden crisis and maintaining them to create a continuous state of preparedness. Snow shovels and generators are common items and readily available in hardware stores, but scarce prior to

²²⁷ Francis L. Fuscellaro, II, "Delaware State Police Critical Incident Stress Management Team," last modified May 1, 2012, Delaware State Police, accessed August 1, 2013, http://dsp.delaware.gov/CISM.shtml.

²²⁸ Federal Emergency Management Agency, "Build a Kit."

an impending blizzard. Similarly, batteries fill the shelves at stores, except when a hurricane is inbound. Grocery and hardware stores routinely experience a flurry of near-frenzied shoppers prior to an anticipated large storm. Many heed the warning and decide to prepare at the very last minute. This is a risky behavior and not true preparedness.

Another consideration that needs to be addressed is the shelf life of a go-kit. Primarily, this relates to the non-perishable food goods and batteries that actually do have expiration dates and are not indefinitely viable. Due to this factor, there will be periodic replacement costs; however, these costs will be minimal compared to the initial investment and should not be viewed as an impediment. Annual inspections will assist in ensuring that kits are serviceable and up-to-date.

Aside from the government recommended go-kit contents, two additional critical items will be added: a 100-watt power inverter and a two-way radio with an approximate direct range of 35 miles. Recognizing that automobiles can easily be used as a generator with the simple addition of a power inverter, this would solve any short-term power outage issues and would provide a temporary mechanism for charging many portable electronic devices. A 100-watt inverter retails for approximately \$50. A low cost twoway radio, programmed to a specific DSP-monitored channel, would provide a backup communications link with or without radio tower functionality. Mobile troopers, acting under direction of the Family Liaison Troopers, would be able to conduct family roll calls and status checks via this inexpensive and effective backup communication system. The fact that Delaware is very flat and only 96 miles long and at most 35 miles wide, ²²⁹ coupled with the fact that all troopers and their families are required to reside in the state, make a 35-mile range appear to be sufficient to accomplish this backup capability. Such radios, generally equipped with multiple channel options, are readily available on the commercial market and are generally sold in pairs for approximately \$60. The cost benefit of these items makes them very worthy of the investment. These ~\$300 kits would ensure that troopers who are leaving their families are doing so with the

 $^{^{229}}$ State of Delaware, "Delaware Geography," State of Delaware, accessed September 10, 2013, http://www.delaware.gov/facts/geo.shtml.

knowledge that their families have the essentials necessary to ride out a disaster or to take with them if they choose to or are forced to evacuate their homes.

E. SUMMARY OF PROPOSED POLICY AND IMPLEMENTATION

The above strategy provides purely for minimal preparedness within DSP, but it is a step in the right direction. The development of an information system and the creation of the family liaisons are in-house projects that could be accomplished in a short period of time. The issuing of go-kits would be contingent upon a funding source. The initial outlay of funds to equip 670 troopers would be significant; however, the subsequent annual cost would be minimal. Kits could be recycled from retiring troopers to active troopers, and this number would be predictable as it relates to DSP's authorized staffing numbers, which regulates new hires to replace retirees or fill vacancies. This financial issue will be the largest internal hurdle for the implementation. With a conservative target price of approximately \$300, DSP would need to allocate approximately \$201,000 to equip 670 troopers with a kit.

To test the effectiveness of the new program, as suggested by Demme, DSP would conduct dry runs to test these capabilities.²³⁰ Family liaisons could be activated, could contact families and troopers on patrol using information contained on the Family Preparedness Information forms, and could confirm that the families have possession of the go-kits. This type of exercise could eventually evolve into more detailed testing and validation procedures. As Demme advises, a large snow storm would replicate many of the conditions that would exist in a large-scale disaster, such as schools being closed, children staying home, families needing emergency supplies, and officers leaving their families for longer than usual periods of time.²³¹ Tropical storms and hurricanes would also provide testing grounds for this program. In fact, the test may actually evolve into a real activation of the program since it is impossible to predict nature.

²³⁰ Demme, "Government Expectations," 66.

²³¹ Ibid., 66–67.

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VII. CHALLENGES AND SOLUTIONS

A. FUNDING ISSUES

1. Initial Considerations

No doubt, there will be challenges that will serve as roadblocks hindering this preparedness effort. As in most cases, funding will be the most challenging aspect of this project; forcing employees to do something is one thing, but forcing them to pay for it is another. Accordingly, DSP should bear the costs of this program and provide go-kits to its troopers. As mentioned above, the initial price tag for this effort would be approximately \$200,000. With an annual budget of over 133 million dollars, ²³² DSP may be able provide this funding; however, this is by no means guaranteed and other alternatives must be explored.

A possible solution to defraying costs would be grant funding and the utilization of existing government contracts and/or pricing. However, the reality is that a primary funding source first needs to be established. The process involved in introducing the idea and convincing government entities, such as the state legislature and the budgeting office, that this is a wise endeavor may consume valuable time and delay implementation. Therefore, anything that takes the financial burden off of these government bodies would be seen as a favorable move. A preferable solution may involve the creation of new and previously untapped funding sources and partnerships as an alternative to traditional government funding. The U.S. government recommends building public-private partnerships.²³³ Other similar business relationships involving "cause marketing" and "crowdfunding" provide promise for raising both funds and awareness. Both concepts are discussed below.

²³² State of Delaware, "147th General Assembly, House Bill #200 (Budget Bill)," June 2013, accessed October 17, 2013, http://legis.delaware.gov/LIS/lis147.nsf/vwLegislation/HB+200/\$file/legis.pdf?open.

²³³ Federal Emergency Management Agency, "Public-Private Partnerships," Federal Emergency Management Agency, accessed October 13, 2013, http://www.fema.gov/public-private-partnerships-1.

2. Partnerships

It would undoubtedly be advantageous for a private sector entity, for example a large retailer, to provide a top-of-the-line go-kit to DSP troopers and then market that go-kit as the one exclusively used by the Delaware State Police to protect their own families. This endorsement deal would certainly prove to be mutually beneficial. A good illustration of DSP using this type of partnership occurred in the early 1990s. Sig Sauer, a then emerging arms manufacturer in the U.S. market, approached DSP with a remarkable offer; it would supply the entire division with a service weapon at a deeply discounted price in exchange for exclusivity and advertising rights. The company wanted to market its new semi-automatic pistol to other law enforcement agencies and to the public as the weapon used by DSP.²³⁴ This effort also served to position DSP troopers as role models within the community through the free advertising in the form of Sig Sauer's commercial marketing endorsement using DSP as its valued consumers.

3. Cause Marketing

Along the same lines and on a much wider scale, Duracell partnered with the National Volunteer Fire Council in 2012 when it launched a creative marketing campaign entitled "Power Those Who Protect Us." This effort highlighted these volunteers and noted that many of these everyday heroes used their own funds to purchase batteries to power their communication and life-saving equipment. There was an appeal to consumers to use an Internet code provided inside the batteries they individually purchased in order to direct a battery donation to a specific fire department. In the end, and as a result of this campaign, Duracell provided 18 million batteries to 11,000 volunteer fire departments throughout the U.S. This effort, in essence, created a partnership between

²³⁴ Michael Berry (DSP Lieutenant, Officer-in-Charge of Firearms Training Unit), personal communication, August 30, 2012.

²³⁵ Duracell, "The National Volunteer Fire Council and Duracell Launch Battery Donation Program to Help Power 23,000 Volunteer Fire Departments across the U.S.," January 11, 2011, *Duracell Newsroom*, accessed August 2, 2013, http://news.duracell.com/press-release/power-those-who-protect-us/national-volunteer-fire-council-and-duracell-launch-battery.

²³⁶ Ibid.

Duracell, concerned citizens empathetic to the needs of volunteer firefighters, and the firefighters themselves.²³⁷

In July of 2013, Duracell again highlighted firefighters and used them in their marketing efforts. The company unveiled Quantum, a new high-quality battery, which retails for 20–30 percent more than its normal batteries. These premium batteries were marketed as something to be used by these specialists. Duracell pledged to provide one million of these batteries to first responders everywhere.²³⁸

In one respect, Duracell sent the message that it backed the community through generous contribution and partnership. Underneath it all, it was attempting to increase sales by building brand loyalty and consumer confidence through something that has been deemed "cause marketing." Companies attempt to raise awareness and money for causes through consumer engagement in an environmental or a social issue. However, the company was already a trendsetter. Duracell had previously utilized first responders in its marketing efforts. In 2002, a Duracell television spot featured the Rocky Mountain Rescue Group and their important job of saving people while operating in steep and treacherous terrain. Consumers were left with the message that if these high-risk rescue crews trusted Duracell, so should they. There was power in this indirect endorsement. The Acme Idea Company served as Duracell's marketing firm for both the 2002 and 2012 campaigns. Scott Kulok, Acme's creative director, stated that the public holds first responders in high regard and noted that "first responders are the heroes of our age." He further stated that "when the worst happens, they turn into superheroes."

²³⁷ Shawn Payne, "Duracell Donates Batteries," *The Citizen-Reporter*, April 2012, accessed October 17, 2013, http://www.sherman-county.com/documents/Reporter42012.pdf.

²³⁸ Andrew Adam Newman, "Duracell Offers Praise, and Power, for Everyday Heroes," *New York Times*, July 22, 2013, accessed August 1, 2013, http://www.nytimes.com/2013/07/23/business/media/duracell-offers-praise-and-power-for-everyday-heroes.html? r=0.

²³⁹ Henry Frechette, "Defining Cause Branding," July 21, 2010, *Citizen Polity*, accessed October 17, 2013, http://citizenpolity.com/2010/07/21/544/.

²⁴⁰ Ibid.

²⁴¹ Newman, "Duracell Offers Praise."

²⁴² Ibid.

Duracell's efforts to support first responders and the community during a crisis were not just conveyed through its television advertising campaigns. The company actually sprang into action during several recent disasters and provided community support through its Power Relief Program. In the immediate wake of several local disasters, Duracell "Power Forward Trucks" responded to the affected areas where it distributed batteries and set up charging stations. Its stated mission was to assist in helping citizens "recharge, reconnect, and recover." In addition, its target audience was the community, first responders, and responder families. This support for the cause of its cause marketing campaign is highly commendable and may signal a trend for companies to put their money where their markets are. This progressive type of collaborative relationship is fertile ground for laying the seeds of responder family preparedness.

4. Crowdfunding

As opposed to cause marketing that seeks consumer engagement in an issue presented to sell a particular product, "crowdfunding" elicits direct contributions to an effort, not necessarily a product. *Forbes* magazine defines this concept as "the practice of funding a project or venture by raising many small amounts of money from a large number of people, typically via the Internet."²⁴⁶ *Forbes* also mentions that crowdfunding brings people together and creates communities of "likeminded individuals."²⁴⁷

²⁴³ Proctor & Gamble, "Procter & Gamble Brings Mobile Relief to Victims of Hurricane Sandy with P&G Relief Center, Tide Loads of Hope, and Duracell Power Forward," news release, accessed August 2, 2013, http://www.pginvestor.com/phoenix.zhtml?c=104574&p=irol-newsArticle&ID=1754584&highlight=.

²⁴⁴ Ibid.

²⁴⁵ "Duracell Power Forward Trucks Bring Mobile Relief to Victims Affected by Alberta Floods," *Business Wire*, June 26, 2013, accessed August 2, 2013, http://www.businesswire.com/news/home/20130625006454/en/Media-Advisory-Duracell-Power-Trucks-Bring-Mobile.

²⁴⁶ Tanya Prive, "What is Crowdfunding and How Does It Benefit the Economy," *Forbes*, November 27, 2012, http://www.forbes.com/sites/tanyaprive/2012/11/27/what-is-crowdfunding-and-how-does-it-benefit-the-economy/.

²⁴⁷ Ibid.

Crowdfunding, as demonstrated by the Vest-A-Dog Foundation, is another promising option for responder agencies to raise money. Vest-A-Dog was formed in 1999 by 11-year old Stephanie Taylor, in Oceanside, California.²⁴⁸ Since that time, fundraising and donations to this program have resulted in the issuing of vests to thousands of police canines throughout the country. This foundation appealed to the public and convinced many that the cause of providing bulletproof vests to police canines was worthy of their hard-earned money.

Responder family preparedness must be marketed to the extent that concerned individuals or groups would be willing to make a tax-deductible donation of any size to this effort. This cause may strike a chord similar to that of Vest-A-Dog and extend beyond the likely contributors such as friends, extended relatives, and civic groups. *Forbes* confirms this trend and advises that crowdfunding, once it achieves momentum, brings donors "out of the woodwork."²⁴⁹

5. Last Thoughts on Funding

The bottom line is the bottom line—this effort will cost money. It is important to explore ways to obtain funding, to garner support for the cause, and make it happen. As seen above, funding is entangled in many other concepts besides money; however, those providing the funding in most cases have to believe in the product, project or cause for favorable outcome. The traditional funding mechanism of winning the minds and wallets of a small number of people, such as lawmakers or wealthy investors, is not necessarily the only way to raise money.

B. ARE RESPONDERS SO DIFFERENT?

The search and justification for additional funding in this area will inevitably lead to some discourse related to the responders being treated differently than average citizens. This obstacle is political and politics could negatively affect this effort without proper navigation. As Kenneth Kuntz, fire study specialist for the U.S. Fire

²⁴⁸ Vest-A-Dog Network, "How Vest-a-Dog Began," 2007, Vest-A-Dog Network, accessed September 10, 2013, http://www.vestadog.org/Content/?78.

²⁴⁹ Prive, "What is Crowdfunding."

Administration, points out that this sort of careful preplanning for responder families could backfire.²⁵⁰ He posits that this advanced preparation could be interpreted by the public as preferential treatment.²⁵¹ It is quite possible that citizens may question why every trooper's family is being provided with a go-kit and possibly at the taxpayers' expense while they are not being provided with the same.

The solution lies in the ability to clearly convey the message that responder family preparedness represents a real benefit to society, specifically, to those served by the prepared responders. Education of the community and community leaders is crucial to avoiding this project experiencing widespread public dissent. With the right public information campaigns and lobbying efforts, the message can be carried forward that responders and their families are going to be placed in a unique position during a major crisis—that of being torn between their families and their duties. The message should also communicate that society needs to endorse this preparedness so that first responders can immediately spring into action and start helping others.

Opposition may still come from legislators, citizens, or other organizations. It is significant to note that these competing agendas will most likely not represent those against responder family preparedness *per se*, but those who see their cause as a higher priority. These opposing forces would most likely represent legitimate agendas competing for funding concerning what they deem important.

A second round of messaging should convey that first responders are truly public servants; they benefit the community by putting the community before their own needs or concerns. They do not serve in a for-profit organization, which makes them stand apart from utility workers and other private industry employees. The go-kit represents a very small recompense for the predicament in which responders and their families will undoubtedly find themselves should a major crisis occur at home. This is a rational and

²⁵⁰ Anne Louise Bannon, "Too Close to Home: First Responder Families in Danger," November 15, 2006, Homeland Protection Professional, http://www.homeland1.com/homeland-security-columnists/anne-louise-bannon/articles/399428-too-close-to-home-first-responder-families-in-danger/.

²⁵¹ Ibid.

highly defendable argument that could be very persuasive with the skills of the right front person(s) to carry forth this message. In fact, the U.S. government has already provided some precedent for this defense.

Using the earlier preparedness analogy concerning bulletproof vests, it is important to note that the federal government has provided vest funding to elevate the overall safety and preparedness of police officers, one category of first responders, to protect them from death or serious injury. This effort has been successful, has saved numerous lives, and has provided positive cascading effects for the families of these responders and the communities that these responders serve. Keeping responders safe and on the job is a very positive goal and a cost-worthy proposition.

If there was any question as to whether the government has specific concern for the family of responders, the Public Safety Officers' Benefit Program (PSOB) serves as another solid example. The federal government through the Bureau of Justice Assistance has provided a death benefit payment to the family of first responders through the PSOB. The benefit for FY-2014 is \$333,604.68.²⁵²

In addition, this program provides an educational benefit to the dependents of a first responder who dies or becomes totally disabled while on duty. One of the purposes of the educational benefit listed in the Public Safety Officers' Benefit Act of 1976 is "to enhance the appeal of service in public safety agencies." This line of thinking by the government clearly demonstrates that it already places first responders in a category separate from the average citizen. The death benefit and the educational benefit are governmental compensation for paying a very high price in the chosen profession of public service as a first responder. Both benefits are paid to the family of the responder.

Any new proposition that costs money is going to be met with some level of opposition in today's financially-strapped world. The idea of responder family

²⁵² Public Safety Officers' Benefits Program, "Benefits by Year," Public Safety Officers' Benefits Program, accessed October 17, 2013, https://www.psob.gov/benefits_by_year.html.

²⁵³ Public Safety Officers' Benefits Program, "42 U.S.C. § 3796d Sec. 1211 Purposes," Public Safety Officers' Benefits Program, accessed June 25, 2013, https://www.psob.gov/files/PSOBRegs2013.htm#StatEdPurposes.

preparedness is not an impossible sell, perhaps not even extremely difficult. As evidenced by the above example of PSOB, legislators are empathetic, perhaps even sympathetic, to the sacrifices that first responders and their families make. With the right lobbying efforts, this agenda and the related paradigm shift could be contagious.

C. CHANGING THE MINDSET

1. The Impact and Potential Impacts

This effort, will no doubt, have a positive effect and will make a difference in the lives of DSP troopers and their families. They will be prepared to the basic level recommended by the U.S. government. FEMA has been attempting to get all citizens to attain this minimal level of preparedness for over a decade and has had very limited success. The citizens served by DSP will also benefit since there are demonstrated potential negative rippling effects for communities if their responders are among the unprepared. The public has placed a very large amount of trust in their first responders, and they will have the knowledge that their responders are prepared to better assist them in the worst of times.

This identified policy gap has a very strong potential of drawing the attention of local, state, and federal government officials since it is directly related to the preparedness of our country. Though responder family preparedness starts first at the individual level, then at the agency level, it fits into a much larger picture of our nation being adequately prepared. Similarly, all incidents relating to homeland security in this country, whether natural or manmade, start at the local level. All levels of government have a stake in this issue since a lack of preparedness represents a liability to our collective homeland security.

2. Risks and Payoffs

There are risks in the sense that the government's estimate of 72 hours may prove insufficient and that this minimal preparedness will not be enough for families to survive on their own during a major disaster. It is impossible to plan for every scenario; however, this level of minimal preparedness is the one prescribed by the U.S. government since

shortly after 9/11. It is also the same level that the government, lacking significant success, has been attempting to have all citizens achieve on their own. It would truly be a payoff to have responder families measurably and verifiably at this level, so that there would be some level of assurance that responders could more rapidly get started helping others during a large crisis and perform their skills at a higher level.

Another risk could involve the vulnerability to the behaviors that develop when certain incentives are taken away. There is a risk in providing go-kits to these families since they could lose the incentive to prepare themselves.²⁵⁴ If first-responder families do not truly embrace preparedness and change their mindset, they could lose their drive to be self-sufficient and instead continuously rely on DSP. The payoff lies in the fact that DSP families will very quickly have what they need to be prepared, but this does involve risk down the road. Planning will need to address this potential pitfall. Continuous engagement and reengagement of responder families will greatly assist in negating this effect. Future monitoring and evaluation in this area is essential.

It is important to add that this minimal preparation is only the first step in developing a culture of preparedness and further engaging responder families to embrace preparedness and a higher level of self-reliance. Both are important components of building resilience through a sense of control and an attitude of self-efficacy. It is also important to add that minimal preparedness is the first step in moving toward higher levels of preparedness. As such, another payoff is delivered since this creates the immediate ability for responder agencies to then move to higher levels of family preparedness.

3. Collaboration

The Delaware State Police is but one organization within a much larger first-responder community, which is comprised of local, state, and national levels. As noted earlier, the *Homeland Security Presidential Directive* 8 (HSPD-8) identifies first responders as "those individuals who in the early stages of an incident are responsible for

²⁵⁴ Uri Gneezy, Stephan Meier, and Pedro Rey-Biel, "When and Why Incentives (Don't) Work to Modify Behavior," *Journal of Economic Perspectives* 25, no. 4 (2011): 191–210, http://pubs.aeaweb.org/doi/pdfplus/10.1257/jep.25.4.191.

the protection and preservation of life, property, evidence, and the environment, including emergency response providers..."255 It also includes "emergency management, public health, clinical care, public works, and other skilled support personnel (such as equipment operators) that provide immediate support services during prevention, response, and recovery operations."256 These are the individuals from organizations that will dedicate everything, including possibly their lives, as well as the safety, wellbeing, and also potentially the lives of their families for the greater good of those they serve. This is a category of public servant like no other, ergo the separate presidential distinction as a first responder. Though they come from various responder organizations, be it at the local, state, tribal, or federal level, there is strength in their overall numbers. Collaboration between separate disciplines within the first-responder community is key to building a unified effort.

This collaborative effort within the first-responder community could serve as the impetus in our country to make responder family preparedness the new norm. Individual responder agencies, such as the Delaware State Police, can blaze the trail forward in attempting to provide a smart practice for others to follow. Individual action in this collaborative effort is not a bad thing; it could provide the testing ground to learn what works, what does not work, and provide some insight on how to afford and streamline the process. The overall goal of this collaboration is to create the understanding that the responder community is willing to give up everything for those they serve and that responders need some assurance that their families will be prepared. A unified voice would prove valuable toward changing the national mindset and establishing this need.

Recognizing that the first-responder community is broad and the fact that this preparedness may never be tested, it is best to initiate this endeavor using those who enter harm's way each and every day. The combined effort of the police, fire, and emergency medical service serves as a great functional starting point. These three distinct disciplines have different specialties, yet they are intertwined in their daily responsibilities within their shared and overlapping communities. Similarly, they will most definitely be

²⁵⁵ White House, *Homeland Security Presidential Directive/HSPD-8*.

²⁵⁶ Ibid.

involved at the onset of a disaster or major incident in their jurisdiction or possibly beyond. These are the heroes who, out of choice, rush in when others rush out.

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VIII. CONCLUSION

The idea for this project began with the suspicion that there exists a widespread policy gap in the first-responder realm concerning family preparedness. Though the responder community proudly holds its families in high regard, a disconnection is potentially created when responders are called for duty during a large-scale crisis. As such, responders must leave their families while likely feeling concerned that their loved ones may need them or become endangered in their absence. In essence, when responders are needed out in their communities, they are also needed at home.

Research sought out agencies that were providing, requiring, or documenting policy in this area. Though responder family preparedness may be occurring on a very limited basis, nothing was prevalent in the literature or other media to indicate widespread or well-known activity. Literature did demonstrate that U.S. government efforts at attempting to get citizens minimally prepared, particularly since the eye-opening events of 9/11 and Hurricane Katrina, have yielded lackluster results. It also revealed that responders and their families have generally been lumped in with the rest of the citizenry, despite their unique position during these desperate times.

The overall lack of existing policy provides evidence to confirm the existence of this suspected gap. The U.S. government has made a separate distinction for first responders through *Homeland Security Presidential Directive* 8 (HSPD-8) and for their families through the Public Safety Officers' Benefits Program. These designations highlight the fact that responders are, indeed, in a category apart from the citizens they serve. Furthermore, the federal government has contended, through the Ready Responder program, that communities and businesses cannot be prepared without first ensuring the safety of the responders and their families.²⁵⁷ In light of this, responder family preparedness needs to be treated as a priority.

The Delaware State Police, like most responder agencies, lacks planning in this area. Therefore, this research focused on the primary question as to whether the

²⁵⁷ Federal Emergency Management Agency, *Ready Responder Toolkit*, 1.

development and execution of a comprehensive family preparedness program would be advisable to assist the agency in maintaining its capabilities during a disaster. Since nothing comprehensive was discovered in existing policy, bits and pieces of interesting and valuable ideas found in the literature helped to shape a potential path toward the creation of policy for DSP.

Of the interesting ideas in circulation, the go-kit was determined to be a very important component of family preparedness. It is very hard to argue against this lowcost, minimal preparedness measure when the U.S. government has been telling the citizenry continuously for over a decade that they could be without responder assistance for at least three days. Another government recommendation, the Ready Responder program, was also deemed to hold significant value in planning and policy creation due to its adaptable framework. Kelenske pointed out that Ready Responder could be the path toward nationwide standardization of responder preparedness.²⁵⁸ Further enhancing efforts to support families, Kindt proposed developing a family support network and encouraged the government to capitalize on the success of the military in this area.²⁵⁹ Demme also suggested that responder agencies develop family support units and she provided cost-effective solutions for implementation through the use of in-house resources.²⁶⁰ Fortunately, FEMA came to the recent realization that attempting to sell everyone on preparedness was not a viable solution. As such, major consideration was given to focusing the preparedness outreach on those who would most likely listen and be most inclined to assist others. First responders and their families fit best in this category.

One missing ingredient in comprehensive responder family preparedness planning is a synthesis of the good ideas like those proposed by the government, Kelenske, Kindt, and Demme. These ideas and recommendations provide a path forward; however, this path is pointless unless someone is willing to take the first steps. A mandate of family preparedness with responder organizations taking responsibility for and ownership of this movement is the final and necessary ingredient.

²⁵⁸ Kelenske, "Emergency Responder," 79.

²⁵⁹ Kindt, Building Population, 15.

²⁶⁰ Demme, "Government Expectations," 61.

It is significant to note that this exploration dealt only with minimal preparedness measures for DSP. Future research and planning efforts should attempt to move beyond simply minimal measures and focus on improving and expanding overall responder family preparedness. Evacuation and sheltering plans for families and their pets, advanced networking and arrangements with neighboring jurisdictions and collaboration with the military all provide possible further avenues for valuable research on this topic. Future planning should also include civilian personnel within the responder agencies. Though not always deemed "essential" in a crisis, their everyday contributions to the organization should not be overlooked.

In closing, it is recommended that DSP commit to the preparedness of its troopers and their families by instituting this three-part strategy to ensure that they have formulated and verified plans, that they possess the specified items that DSP has required for initial post-disaster survival, and that an internal support system is in place. The division should not leave any doubt as to whether or not troopers and their families are prepared for these most dire circumstances, especially when the division is requiring that the family divide for the benefit of all citizens. This mandate of service calls for both insurance and assurance that the trooper and his/her family are adequately prepared. The division bears the responsibility of providing mental and material support during this created DSP family crisis brought on by the larger community crisis.

This new way of thinking and acceptance of responsibility for our protectors and their families creates a new paradigm in the world of responder preparedness. DSP would be among the first-responder agencies, if not the first, to create and mandate a comprehensive responder family preparedness policy for the protection of its own. In addition, it would also signal the start of a larger movement to take responder family preparedness out of the "optional" category and to have it viewed as a necessity. This will represent the new normal.

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